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Entered May 22, 1902, as second-class matter, Post Office at New York, N. Y., Act of Congress of March 3d, 1879.

Vol. XXV. No. 6 JUNE, 1909. Whole No. 129

THE ARCHITECTURAL RECORD

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PUBLISHED BY

THE ARCHITECTURAL RECORD CO.

President, Clinton W. Sweet Treasurer, F. W. Dodge
Vice Pres. & Genl. Mgr. } H. W. Desmond Secretary, F. T. Miller

11-15 EAST 24th STREET, MANHATTAN
Telephone, 4430 Madison Square

Subscription (Yearly) $3.00 Published Monthly

TWENTY-FIVE CENTS

THE ARCHITECTURAL RECORD CO. NEW YORK

TWENTY-FIVE CENTS

OFFICE OF PUBLICATION: No. 11 EAST 24th STREET, NEW YORK CITY
WESTERN OFFICE: 841 MONADNOCK BLDG., CHICAGO, ILL.

"HERCULES AND ANTAEUS," BY A MANS SCULPTOR (XVI CENTURY)
IN THE GARDENS OF THE CHATEAU OF LE LUDE.

The
Architectural Record

Vol. XXV. JUNE, 1909 No. 6

Selecting the Suburban Home Site

Practical Suggestions

In the April issue, the general principles which should govern the development of building estates were outlined; in this article it is intended to emphasize a few of the more practical points therein mentioned, and especially the importance to the intending purchaser of utilizing professional knowledge in the selection of a site as well as in its subsequent development. It is desired also to point out that the ideal development of a building-estate rests as much with the purchasers as with the management. It is for this reason that points of interest to both parties have been mingled, as the welfare of the estate should be of mutual interest.

One of the first points taken up in the previous article referred to the advantages accruing to an estate by thinning-out thick and mature woods. It was shown that by so doing a fair share of the dominating views would be assured to all lot owners, thereby increasing the value and salability of the individual lots, as well as increasing the general artistic tone of the whole property. As the process of woodthinning is a somewhat unique one the method of procedure will be explained in some detail. The operator should first absorb the dominating characteristic features of the woodland by reviewing its entire reach from some lofty vantage point. He should then acquaint himself with the internal topography of the woodland by tramping through it until its every detail and all of its component parts have become clearly "mapped-out" in his mind. By thus studying the situation he will have determined the parts which require the severest "thinning-out," he will have noted the most picturesque and characteristic formations, and will thus be enabled to form his plans in such a way that the final grouping of the plants will preserve, so far as is consonant with the utilitarian end in view, the most artistic combination of nature-groupings and of open meadow land. Without thus photographing upon his mind the general topographical characteristics of the land, the operator literally works in the dark, and will achieve nothing but haphazard views and scraggly and disconnected effects.

The trees to be felled must then be marked for the axeman. With two or three laborers, armed with short axes, or with pails of paint and brushes, he then proceeds through the woods "blazing" all trees which are to be felled, or according to the system to be adopted. "striping" the trees which are to be saved. Where the latter are in the vast minority, it is a time-saving policy to "stripe" the trees with paint. If, however, the reverse is true, it is safer to "blaze" the trees which are to be cut. In any case whichever system is adopted it should be continued to the completion of the work, for if the two systems are worked together there is great danger of serious mishaps occurring.

The operator should not attempt to

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complete his task in one wholesale marking. He should repeat the operation several times, as after each marking or cutting a more comprehensive grasp of the result can be obtained. The winter months are the most economical for such work, but the final, or even the two last cuttings, should be performed in the Spring months, after the leaves have matured. Doubtful points can in this way be solved with greater accuracy.

offered to the engineers. Where strict economy is not a necessity a minute topographical map should be made. It is always a desirable luxury, and will in innumerable instances be the means of avoiding loss of time and will frequently be the means of avoiding current engineering. It is always a comparatively costly item. On flat and unobstructed ground such a map is a superfluity. The mere outline of the property, with possibly a few important

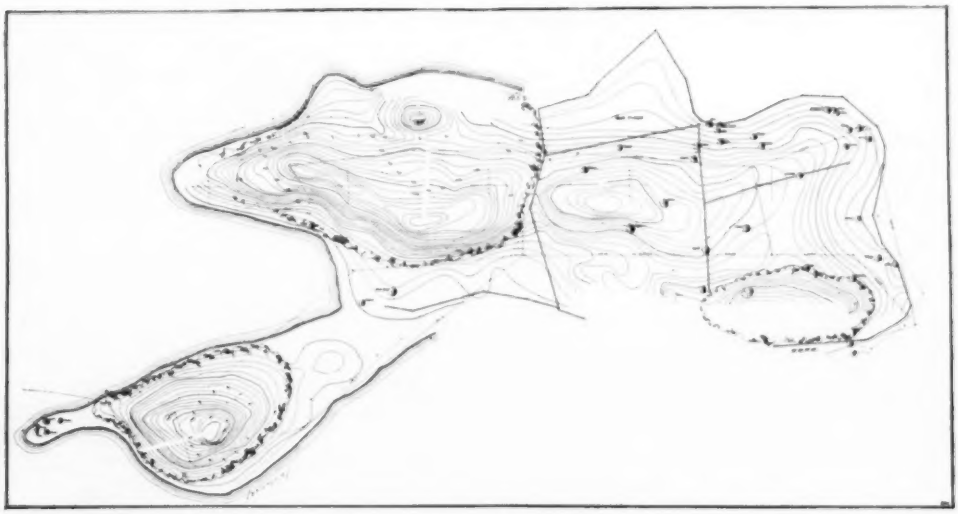


Plate I.—This plate shows the topographical map to be used in connection with the General Sales Map, Plate II. It is not intended to be an accurate working map, but to aid intending purchasers to acquire a clear idea as to the general character of the land. As pointed out in the text, it is of importance to each purchaser of a plot to have a definite idea as to the general policy of the company, and to this end it should be the aim of every estate to supply its clients with all available information. A topographical map, a general sales map and a figured map will convey the required data.

An open prospect is so obviously a pre-requisite to the full enjoyment of country property that no company should neglect the operation of wood-thinning, and where this has been neglected, every lot owner should insist upon its performance.

If a topographical map of the property is to be secured it should not be made until the woods have been thinned. The cost will then be at least one-third, possibly a full half less, owing to the increased facility of movement

notes, is all that is required for a designer to make his "out-lay" of roads and lots. However, where the property is of a hilly and irregular nature with steep and abrupt gradients, a topographical map is of considerable working value. It is correspondingly expensive.

Apart from its value as a working basis to the constructing engineer it has a pictorial value insofar as it is descriptive of the general type of the property. In this sense it is frequently

used by companies in conjunction with the general sales map, to such prospective clients as are unable to personally view the property.

Otherwise a topographical map in itself has no value to the intending purchaser. What is, however, of vital importance to the future purchasers is the general sales map. The purchase of property which represents the

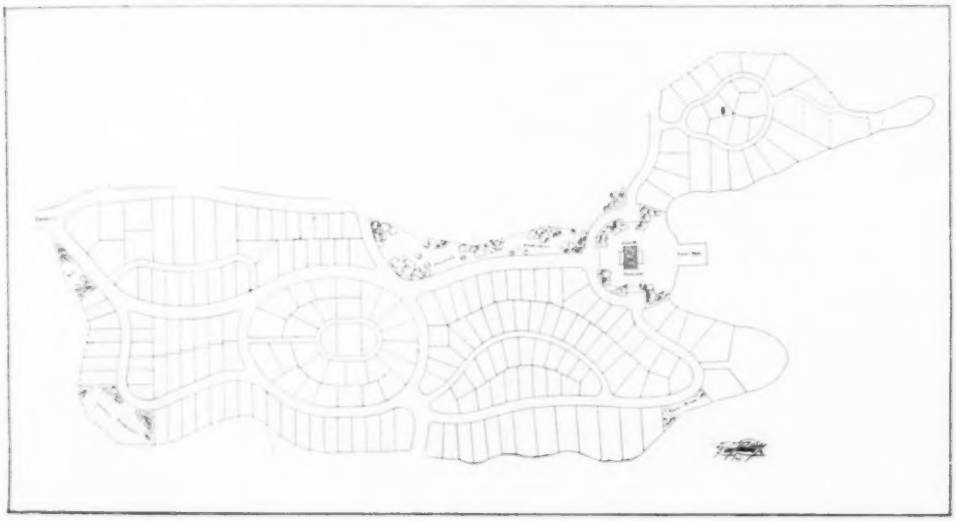


Plate II.—The above plate represents a good type of a General Sales Map. By comparing it with the topographical map (see plate I.) a comprehensive conception of the character of the land, the various sizes of the lots and their adjustment to the land may be obtained. It is not a "figured" map from which lots are sold, but a descriptive diagram made for the purpose of enabling intending purchasers to obtain a clear idea of the system of sub-division which the company has adopted.

The irregularity of the lots as to their sizes and areas will indicate that the road system and the lots have been "worked out" upon the ground and that each lot will afford a suitable and logical site. Such a map guarantees the future environment of each lot. A map so designed removes the possibility of reducing the average size of the lots at a future date. A map of this kind should be distinguished from what is known as a "figured" map. (See Plate III.) Lots should not be bought from such a map, and in the event that a company has not prepared a completely worked out and figured plat, each separate plot sold should be guaranteed by some responsible title company.

future home of a family is a question of supreme importance and yet the average layman considers himself fully competent to select a parcel of land as being fitted to the most artistic development, or at least, capable of development along lines suitable to his personal tastes. Such an attitude is no less illogical than would it be for him to attempt the designing of his own house and grounds, or to rely on his own judgment in the purchase of valuable objects of art.

A building site is, or should be so considered, an object of art—a jewel in the rough—and every building-estate is but a collection of such jewels more or less well assorted and offered to the public for individual selection. The problem which confronts the purchaser in selecting a plot is two-fold, first, he must ascertain that it is flawless, and second, that it is capable of such artistic treatment as he desires. Viewing the purchase of land in this light, the wisdom of employing professional opinion in the selection of a site will appear obvious to all. No artist can do justice to himself or his client unless his has been the guiding hand from the very inception of the process of creating a home. To expect of an artist to create

a perfect picture without having had the privilege of selecting its very basis —the essential item of the entire work— is to expect the impossible. No landscape painter of any self respect would accept a commission to "fill in" a canvas, the back-ground of which had been started by a layman.

But to return for the present to a more prosaic side of the matter ——. The general sales map of the company relation between map and ground facts, and negligence—to use no stronger word—on the part of the company, to strictly adhere to the "promises" of the map, is a cause of endless disagreement, disappointment, and in many instances, of law-suits. A general map should not be offered to an intending purchaser as a "bait," but as a positive representation of what has been or is to be constructed. The potential surroundings

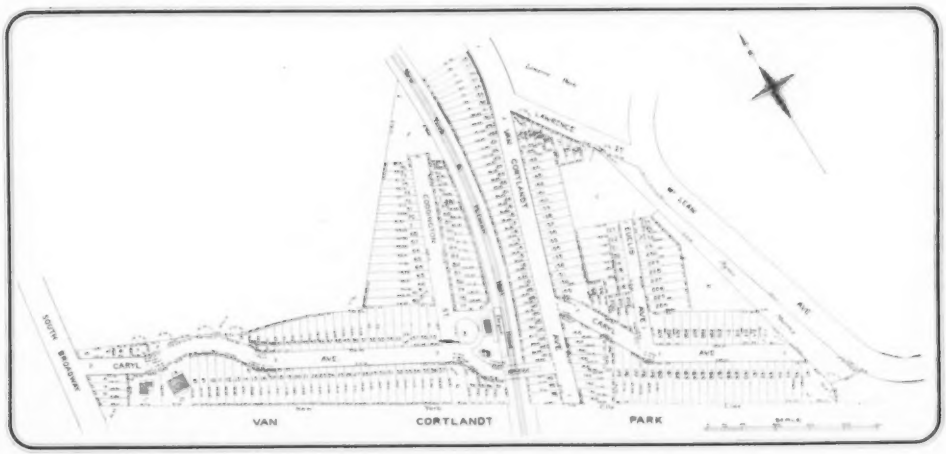


Plate III.—The above plate represents a typical "figured" map, as distinguished from a "scaled" map. Every building estate map should be so figured in order to avoid subsequent disputes as to boundary lines. Avoidance of this initial expense is the most frequent cause of law suits over boundary lines, and the absence of such information on any map may be taken as an indication of false economy on the part of the estate, which will inevitably lead to future litigation between its clients and itself.

As it is a costly operation, it is avoided wherever possible, and especially in connection with estates which are situated in country districts, and which are designed with irregular road and boundary lines.

may or may not be of value. It too frequently is little else than a charming picture. It is for the layman, or his expert, to determine as to its intrinsic value. This depends upon the faithfulness with which its representations have been adhered to in the actual execution of its suggestions, that is, upon the accuracy with which its lines—its roads and lot-subdivisions—have been executed in concrete form or "staked out" upon the ground.

Carelessness upon the part of the intending purchaser in ascertaining the of a lot determine, to a large extent, its value. The fact that a road is to go here or there, that an adjoining plot is to be reserved as a park area, or playground, or as the site of a public building, all tends to increase or decrease the future value of a lot. It is important to have positive information upon such points as these. There is but one way to ascertain such facts. If the general map agrees with what has been constructed or with what has been "staked-out," and if the deed refers to both and equally accepts both as a basis

of the covenant to the purchaser, the latter may rest assured as to the facts. It would seem obvious that every purchaser of a lot should follow such a procedure. But it is safe to say that nine out of every ten purchasers of building-estate lots, especially during the early days of the construction work, are more or less ignorant of such facts, and further, it is also safe to say, that a large percentage of purchasers are not positive even as to their own boundary lines! Again, land companies do not, nor do their clients, always realize what the constituents of a practical lot are, to say nothing of what constitutes an artistic parcel of land. It frequently

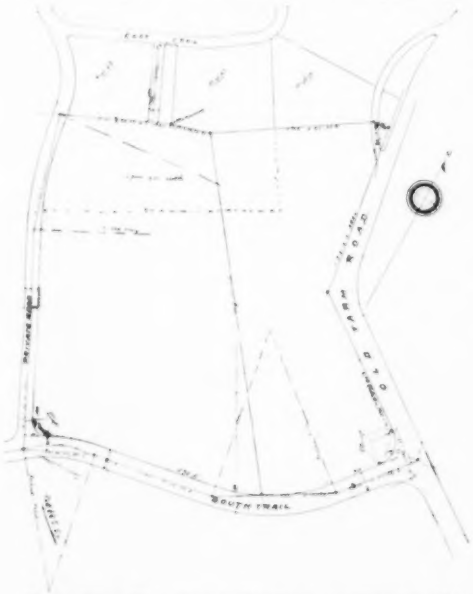


Plate IV.—The above diagram represents the plot referred to in the text. It is in area little less than six acres. The right of way is indicated at the north end of the lot. The incongruity of a fifteen-foot right of way leading to a plot of such an area is only too obvious. The fault lies in the original sub-division of the estate. It is by no means a unique case. It is a typical deed map as given by a modern building estate. The general map is not figured, hense each lot as it is sold must be located individually. Such location should be done with the utmost accuracy. The map in question is certified to as "substantially correct." It would not be in its present condition accepted by any reliable title company. Eventual disputes as to its boundary lines can only be avoided by the indifference of the adjacent property owners as to the accuracy of their own boundary lines, or by checking the errors in figuring the areas of the adjoining lots.

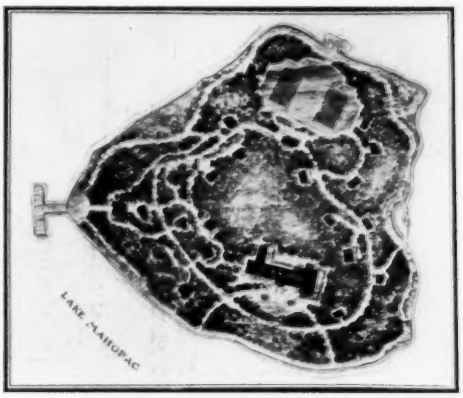


Plate V.—Representing a typical Adirondack summer camping estate. Each cabin is rented for the season only. The whole property is common to all, there being no sub-division of property for the individual cabins. The casino supplies the common dining hall and lounging rooms.

is a literal case of the blind leading the blind. It is a frequent custom for companies to sell their lots "as per map." It need hardly be pointed out that a purchaser should invariably ignore such a practice. He should buy land and not representations, and he should buy land that is fitted for the purpose he has in view. Hence the importance to every building-estate company, which pretends to a sound financial and honorable standing, to have prepared a well thought out and carefully draughted map and of having it transferred accurately to the ground. "Staking-out" should be done so clearly that every intending purchaser may see beyond peradventure exactly where his boundary lines run and just what they include. In many instances this is originally done most thoroughly. But neglect to maintain the work once done results in mis-adventures quite as serious as original neglect. The majority of estates are before the public many years and the successive winters and the wear and tear of circulation, tend gradually to destroy all vestiges of roads and boundary lines, with the result that the elusive memory of the sales agent is depended upon to approximate the actual boundary lines of the lots. Many

instances could be enumerated to exemplify the exasperating occurances resulting from carelessness on both the part of the agent and the buyer.

One instance occured as follows: A corner lot was purchased overlooking the Sound. It was bounded on one side by a deep and precipitous ravine. The other two sides were bounded, as the agent informed the purchaser, approximately "by those two trees and from thence to about here." The whole making a very desirable corner lot. The lot was purchased. Subsequently it was discovered that the important boundary line described by the agent as "from thence to about here," forced the building site so near the edge of the ravine, that in order to construct the house it was necessary to project the body of it considerably over the edge of the ravine. The new owner had in fact, as he expressed it, "bought more air than land." There was but one alternative, namely, to buy the adjoining lot! Another instance may be mentioned: a picturesque lot was purchased and the house practically completed. The land designer was called in to arrange the ground. A casual survey of the property disclosed the fact that there was no practical line for a driveway to the house. Result: it required weeks of irritating litigation to secure a right-of-way through an adjoining property. As this easement was but fifteen feet wide the error was but partly checked and could only be fully checked by the purchase of more land. Many an owner has been exasperated beyond measure upon finding, after the purchase of his lot, that certain features, such as a picturesque grouping of trees and rocks, or a fine clump of pines, were not included within his boundary lines. Or to reverse the condition, a given lot may frequently be made logically complete by including within its area a strip of an adjoining plot, which should have been acquired simultaneously with the original purchase. The majority of such errors and omissions could be obviated by clear and accurate demarkation on the part of the company and by the layman securing expert advice in the selection of the land for his future home.

A point of considerable importance for every purchaser to determine in weighing the future real and artistic value of his prospective property, is the relative position of the contiguous house-sites. The company should, in order to enable this point to be ascertained, demark in a conspicuous form these probable sites. It is also a good plan for the company to have constructed a cheap platform the height of which will correspond to the floor level of the second story of an average house. This will provide an opportunity of ascertaining the prospect which the proposed house will afford.

It is weli to point out here that the leading building-estates of to-day are at infinite pains to improve their properties to the greatest advantage, well knowing that the majority of people, other things being equal, will seek that property which has been most scientifically and honestly developed. And it may be stated here that one of the most telling hall-marks as to the policy and the character of the expert advice which has and is to govern the out-lay and development of a given property, is the system of road alignment and lot-subdivision which has been adopted, and which show on the sales map. The adopted system will to a large extent determine the class of buyers that will eventually be attracted to the estate. Without repeating what was pointed out in the previous article as to the relative merits of the "gridiron" system, as compared to the "logical" system, it may be said with assurance that, where the policy of intentionally subdividing the lots into areas too small for individual use, for the purpose of compelling the purchase of two lots instead of one, that the property will eventually deteriorate into third or fourth class investments. This building-estate "trick" originated with the "gridiron" system but is frequently adopted in the "natural" system. Thus the alignment of the road may be correct, but the lots will have been "squeezed"—that is, one logical site will have been divided into

two or three "paper lots." The result is obvious. It is always easier to sell one lot at a comparatively high price than two or three lots at a comparatively low price. Hence where one individual will buy three or four lots and build accordingly, five or six individuals will buy but one lot and build accordingly. The smaller investments naturally depreciate the value of the larger investments, and eventually determine the controlling value of the whole property. A study of the general map as compared with the topography of the land will at once discover the policy of the management in this respect.

It has been pointed out that the ideal development of an estate rests as much with the buyers as with the company. All that the company can do is to scientifically dissect its property into the most logical and individually desirable lots. From this point on the artistic value of the estate as a whole depends upon the wisdom with which each owner has chosen his site and with what taste it is subsequently improved. It is not enough to have secured a clean title to a given parcel of land. The point here to be punctuated is that having accomplished so much, the average owner believes he has accomplished all, whereas for the real purpose in view, the creation of a beautiful and harmonious home, he may have accomplished naught.

The two primary essentials in the creation of a perfect home are, first, the selection of the artist and upon his advice the selection of the land with a view to the desired form of development. The majority of artists are selected on account of their personal traits, whereas they should be selected on account of their inherent artistic bent. A fascinating manner can hardly compensate for a badly designed Colonial villa and yet it is an undeniable fact that the more talented an artist is the more specialized is his talent. Hence the client should in the process of creating a new home proceed thus: he should first decide what manner of house and garden is most to his liking: he should then select the artist best adapted to materialize his ideal: and finally, he should, subjecting himself to the advice of the expert, purchase the land for his new home. Thus equipped he has at least started with every available requisite for the successful issue of his venture.

A casual stroll through a modern building-estate, will to the competent eye, clearly show that nine-tenths of the houses have been designed by one mind, despite the fact that there are apparently twenty different styles (?) of architecture and gardening. A closer scrutiny as to the relation of the houses to their sites will disclose the fact that but a sparse minority of them are really designed with feeling or in conformity with the character of the land upon which they rest. The reasons for this are clear, and although not peculiar to the architecture and gardening of building-estates, they are more clearly brought into relief by the proximity of the houses and the inevitable "oneness" which characterizes all such estates.

In the event of the company itself erecting the majority of the houses upon its estate, it should not employ or contract with one architect to design everything from a fifteen hundred dollar bungalow to a twenty thousand dollar villa. Obviously it should employ one who is fitted to design bungalows, another who is fitted to do classical designs, and still another who is adapted to the more romantic or less classical styles.

The American layman has not yet grasped the essential inter-relation between the land, the house and the artist. The average American architect will accept, is compelled to accept, as a means to a livelihood, any commissions whatever, ranging from a twenty-story office building to an Adirondack log cabin. Such obviously is not the ideal relation between client and artist. It has been pointed out what this relation should be. A little thought will show that the eventuation of this ideal relation depends almost entirely upon the independence of the layman and his appreciation of the artist's limitations.

George F. Pentecost, Jr.

HEADQUARTERS BUILDING, RIVERSIDE—CHARLES RIVER RESERVATION.
Stickney & Austin, Architects.
Boston.

REVERE BEACH RESERVATION, BOSTON—CARNIVAL WEEK.

A Monumental Work of Landscape Architecture: The Metropolitan Park System of Boston

Probably nowhere else in the world are so fully illustrated the relations that landscape architecture bears to architecture pure and simple as in the metropolitan parks of Boston. This is mainly by reason of the diversified character of the park system itself—diversified both in landscape and in functions. Such a range in nature and in use implies a corresponding range in what might be called architectural traits. And here it seems proper that at the start due significance should be laid upon the circumstance that the relations between these two great branches of design have in this instance been logically developed according to their normal bearings—and not invertedly, and consequently perversedly, as unfortunately has elsewhere now and then turned out to be the case.

This normal relationship is founded upon the simple axiom that architectural activity of any kind, if it is to be kept true to its purpose, must be a manifestation of structural utility expressed in terms of art. However it may be with other phases of art, true architecture can never be an "art for art's sake." Even when we come to the purely monumental this must hold true. For here the purpose, the use, lies in the thing that calls for expression; unless the result is true to this the work itself has no reason for being. So in a work that is to be expressed in terms of landscape design it follows that the dominating motive must reside in its landscape quality. Insofar as architecture itself is concerned therewith it must hold a complementary or incidental relationship. So soon as it tends to assert itself on its own account it becomes false to itself as well as false to its mission. In landscape work where the hand of the designer is betrayed in evidences of its touch, as in the roads and paths of a

Mattapan Bridge—Blue Hills Parkway.

J. R. Roblin, Engineer.
Wheelwright & Haven, Consulting Architects.

public park—in contrast with the guiding impulse that employs art for the concealment of artifice—these are made subordinate to the main intention by a frank recognition of their function as necessary intrusions and are reconciled to the scheme by imparting to them an accentual character. That is to say, that when, for instance, a road is made to lead to a charming view where, perhaps, certain qualities of the scene culminate in an emotional appeal, either tranquillizing or picturesquely piquant, it may not be in a way that ostentatiously declares itself; to achieve its end it must lead to its object without the effect of self-consciousness, as of a hand pulling aside a curtain to say: "Behold!" It must be done quietly and naturally until the end is revealed much as a flower unfolds itself. Palpably constructed features, like roads and paths, are not designed—as so many suppose and as the tyro attempts—for the sake of producing upon a paper plan a pleasing composition of gracefully curving lines. They are nothing more than carefully devised means to aid the public in convenient access to the various parts of a pleasure-ground and to guide it in its movements in a way that will contribute to its enjoyment and prevent injury to the elements that make up the sources of gratification—an injury that surely would result from the defacements wrought by uncontrolled movements on the part of many people. Roads and paths are thus made incidentally to contribute to the successive revelation of beautiful qualities that impress themselves upon the beholder in a series of scenes or pictures. A park, when properly designed, is never planned with reference to the construction of an attractive arrangement of roads and paths. On the contrary, these are made as few and as inconspicuous as possible. It is in such things that the skill of the landscape architect shows itself. In the rest of his work his skill is not in evidence at all. So with architecture in these relationships. Unless it is employed in nicely harmonized subordination to landscape qualities it fails of its purpose.

Auburn St. Bridge—Mystic River Reservation.

J. R. Roblin, Engineer.
Wheelwright & Haven, Consulting Architects.

That there is need of saying this is evident when we recall a striking instance of the contrary procedure. Since it is well that notable instances should be put on record, either for the sake of encouragement or of wholesome warning, the specific case may here be mentioned. It may be remembered that some years ago, at the time when it was decided to utilize New York's Bronx Park as a botanical garden and an arboretum, the question arose as to its equipment for that purpose. The friends of the project were influential socially and financially. In certain quarters it was felt that here was a prime chance to make a telling architectural effort; on the other hand it was urged that whatever structural works were undertaken should be subordinated to the purpose of the park. The former view unfortun-

ately prevailed. The main result was a monumental-looking building, large and pretentious—good enough in itself, but decidedly out of place in its environment. It asserted itself in a rather vain-glorious fashion as the culminating feature of the park, set as conspicuously as possible for the sake of architectural display, whereas in site and in treatment it should have been kept strictly incidental to the true use of the park. But the actual effect was that of a park employed as a setting for a palace. *Indecorum* is perhaps none too strong a word to characterize the procedure.

A public pleasure-ground, or a system of pleasure-grounds, must be equipped with certain instrumentalities demanded for the proper service of the public for whose benefit it exists. The designer, the landscape architect, establishes the roads and paths, concourses, terraces and other modifications of the surface requisite for the ends in view. Then there must be bridges, shelters, houses for resident officials, accomodations for police, and buildings designed to meet the various recreative purposes for which the place is intended, such as restaurants, field-houses, and the like. These require the services of the architect. But in the execution of his task, just as the landscape architect must regard his roads, paths, and other features as necessary incidents to be carefully subordinated to landscape qualities, so this artist must also regard his activity as one of subordination and co-ordination, harmonizing his work with its landscape surroundings, making it express its purpose as quietly and unobtrusively as possible —always with due regard to these limitations. While holding these limitations steadily in view, the architect need not fear that he is losing any opportunity whatever, or sacrificing his artistic individuality in any respect, through a recognition of the necessity of his keeping a minor place in the scheme of things. Indeed there is ample scope for work of the greatest excellence under these conditions. Here the opportunity of the artist is that of exercising the skill and taste required to maintain a proper sense of values in relation to other elements of

Boston & Maine R. R.—Mystic River Reservation.

J. R Roblin, Engineer.
Wheelwright & Haven, Consulting Architects.

the larger work in which his own work plays but a part. On the other hand, should the architect insist upon asserting himself he would thereby lose his opportunity through the very fact of uneasily endeavoring to make more of it.

In Boston's metropolitan parks uncommonly good opportunities have been given for the exercise of architectural talent, since the extensive scope of the system, the variety of functions represented by the various individual parks, have given opportunities for a correspondingly wide variety of architectural activity. To appreciate this notable circumstance some idea of the character of the system is essential. It consists of a considerable number of separate features, widely differing and often strongly contrasting in character. The system

Alewife Brook Bridge—Mystic River Reservation.

J. R. Roblin, Engineer.
Wheelwright & Haven, Consulting Architects.

Bridge in Medford—Mystic River Reservation

J. R. Roblin, Engineer.
Wheelwright & Haven, Conculting Architects

aims to do for a great metropolitan district made up of forty separate municipalities, with a total urban population of more than a million and a quarter, that which at the time its realization was first determined upon had already with remarkable completeness been done for the central city by an elaborate park system of its own. Not only has it complemented Boston's municipal park system with a needed range of outer parks that have conserved in perpetuity and upon a grand scale many of the most valued and distinctive features of the scenery of the region; it has enabled the numerous suburban municipalities to do for themselves through concerted action what Boston had already so well done for itself, and which previously they had lacked power to do. The metropolitan system, taken in connection with the local systems, makes a remarkably complete whole; an equipment of recreative open spaces and connecting pleasureways such as no other great city in the world yet possesses in respect to artistic design and scientific regard for the needs of a great metropolitan community. In this system the typical natural landscape has been preserved by the establishment of three important wilderness reservations. One of these, the Blue Hills Reservation, embraces what is practically an entire mountain range in its area of nearly 5000 acres. On the opposite side of the city, to the north, at about the same distance from the center as Boston's municipal pleasure-ground, Franklin Park, lies the Middlesex Fells with an area of about 3000 acres, including various lakes nestling amidst a wild region of rocky hills. Somewhat similar in character to the Middlesex Fells Reservation is the large area known as Lynn Woods, where the great reservoirs for the water-supply belonging to the city of Lynn have been protected by setting apart the surrounding well-forested hills for park purposes, making an area of altogether something like 2000 acres of land and water. Another wilderness reservation, of modest extent as compared with these, is the Stony Brook Woods. This, like the Blue Hills, lies on the south side of the city; it has 400 or more acres making a sort of an expansion of a great picturesque parkway connecting the municipal system of Boston with the Blue Hills. These wilderness reservations are intended to be simply developed, the sylvan landscape maintained scrupulously free from appearance of artificial intrusion beyond the features necessary to make them conveniently available to the public and serve the uses that mean a liberal enjoyment of natural scenery and of life in the open air by the great urban multitudes living near by.

The surroundings of a maritime city naturally include a great deal of waterfront, much of which, either by reason of shallow water or of facing the open ocean, is of a character that makes it unavailable for commercial or industrial uses. Moreover, the seashore offers the greatest attraction to the multitudes

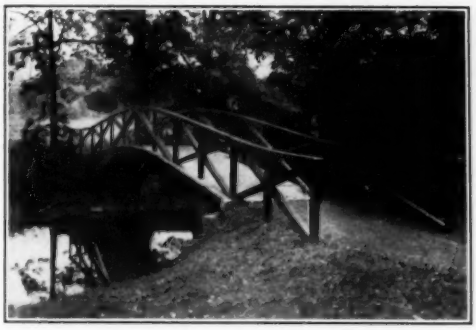
Granite Branch Bridge—Furnace Brook Parkway.

J. R. Roblin, Engineer.
Wheelwright & Haven, Consulting Architects.

throughout the warm weather. Thither the people resort for the cooling breezes from the water and for bathing and other aquatic enjoyments. Elsewhere, as at New York's Coney Island for instance, it has usually been customary to depend entirely upon private enterprise for meeting the demands of the public for seaside pleasuring. The result is apt to be a heterogeneous utilization of the shore in ways that offend the taste as well as hamper the recreative opportunities of the public. Such was the case at Revere Beach in the days before it became a public domain and one of the leading features of the Metropolitan Park system. Here the occupancy of the shore was of an extremely disreputable and squalid appearance. The policy of seashore reservations as features of the metropolitan plan, first instituted here, has been followed out by the reservation of various portions of the metropolitan water-front for park purposes. Hence we have the six different seaside reservations of Revere Beach, the Winthrop Shore, the Lynn and Swampscott shores, Nahant Beach, the Quincy Shore, and Nantasket Beach. Beside these the city of Boston as a municipality has important seashore recreative grounds of its own. Quincy Shore, like Boston's Strandway and Marine Park, lies upon the quiet waters of the land-locked bay at about the same distance from the center as Revere

Electric Railway Bridge—Middlesex Fells Reservation.

J. R. Roblin, Engineer.
Olmstead Brothers, Consulting Architects.



Ginn Field Bridge—Mystic Valley Parkway.

J. R. Roblin, Engineer.
Stickney & Austin, Consulting Architects.

Beach and the Winthrop Shore on the north; Nantasket Beach on the south, with its surf-bathing, corresponds in location to the Lynn and Swampscott shores and Nahant Beach on the north.

These seaside pleasure-grounds are indeed most precious public possessions. Their relation to each other in distribution at corresponding distances from the center, like the relative position of the great wilderness reservations, is strikingly symmetrical. A like order in distribution applies to the features that constitute the third element in the great metropolitan scheme; that is the reservation of the water and banks of the three principal streams that flow into Boston Bay; the Charles, the Mystic, and the Neponset rivers. The reservation of these river banks, and the consequent improvements of the streams by restoring the ancient cleanliness of their waters and their shores in ridding them of unsanitary occupancies was due to the inspiring suggestion of the late Charles Eliot, the lamented young landscape architect who was a main and indispensable factor in securing the establishment of this great park system, and who thereby in his work set himself a monument even more enduring and noble than that which the architect of a great cathedral may create. With simple and convincing eloquence Mr. Eliot pointed out how in these rivers and their shores lay the potentiality of great recreative areas where the needs of the great surrounding popu-

Headquarters Building and Police Station—Middlesex Fells Reservation.
Stickney & Austin, Architects.

lations might most easily and cheaply be met, at the same time assuring great hygienic improvements in the opportunities thus given for the fresh sea-air to draw unpolluted up the valleys to the interior. These valleys also offered the most natural lines of movement for the great population seeking convenient routes to the seashore. All of this ideal has now been achieved in its main lines, and the execution of its details remains to be carried out as occasion may demand.

A fourth element, incidental in its relation to the larger features of the scheme, is the inclusion of certain minor reservations created with regard to their peculiar value in picturesque or beautiful scenery, unique so far as the neighboring region is concerned. One of these, the Beaver Brook Reservation in Waltham and Belmont, is notable for the finest group of ancient oaks to be found in this part of the world. These noble trees, in age estimated at a thousand years at least, grow along a meandering terminal moraine that makes a topographical and geological feature of exceptional interest. Through the reservation runs the historic Beaver Brook, celebrated in one of Lowell's most beautiful poems.

Headquarters Building—Blue Hills Reservation.
Stickney & Austin, Architects.

Another feature of this class is the Hemlock Gorge, an uncommonly beautiful piece of wild and picturesque scenery on the Charles River at Newton Upper Falls. This is now included in the Charles River Reservation which comprises the greater portion of the banks of the river throughout its course of nearly 30 miles in the Metropolitan District.

In this connection may be mentioned the relationship between the metropolitan system and the properties in charge of the Massachusetts Trustees of Public Reservation, an organization incorporated for the purpose of preserving beautiful and historic places entrusted to its care for the public benefit. The first of these reservations thus given in charge—a beautiful grove of white pines and hemlocks, Virginia Woods, given by a woman in commemoration of her daughter—is now a portion of the Middlesex Fells Reservation. Another, the historic Governor Hutchison Field, opposite the site of the Governor's country home in Milton, adjoins the Metropolitan Neponset River Reservation and commands one of the most enchanting prospects of river, field and shore scenery to be seen in New England.

A highly important and distinctive feature of the metropolitan scheme comprises the connecting parkways and boulevards. These add immensely to the value of the system for the public. They connect all the principal reservations with the metropolitan center and with the various suburban populations, and also, to a great extent, with each other by routes that enable the public to reach the various pleasure-grounds with the greatest convenience and enjoyment. These pleasure-

ways have been laid out so far as possible with reference to landscape character. Thereby the enjoyment of a holiday in the open practically begins at the outset by making agreeable from the start the way to a pleasure-ground, otherwise too apt to be tedious, wearisome and generally uncomfortable. This is accomplished not only by the construction of pleasure-drives, but by incorporating as a feature of the design, so far as possible, routes for electric-cars running in reserved spaces where, according to the admirable precedent set in the construction of the celebrated Beacon Street Boulevard, the rails are laid in turf. The parkways and boulevards have thus become routes for popular transit as well as purely pleasureways for the movement of vehicles. This system of parkways and boulevards has been of enormous value since the advent of the automobile. The ordinary highways are either so congested, or so fully devoted to regular traffic, that had it not been for the relief afforded by the pleasureways of the Metropolitan Park system, not only the general inconvenience but the public danger from motor-vehicles would have been tremendously increased. Under the circumstances thus developed since it was projected, it is difficult to see how this system could with safety have been dispensed with, and it is fortunate that it has been so well developed.

The total cost of the metropolitan park system to date is something like $15,000,000; the parkways and boulevards alone cost something like $5,115,000 and the parks very nearly $10,000,000. Beside this are to be reckoned the investments of Boston and the various suburban municipalities in municipal pleasure-grounds amounting to many millions of dollars.

It will be seen that a great system of recreative open-spaces like this requires a wide diversity of constructional work, all of which in turn demands commensurately artistic treatment. This may range from the simplest to the most elaborate, but all features must always be carried out scrupulously in keeping with their surroundings and subordinated to the main character and function of the

Stables—Charles River Speedway.
Stickney & Austin, Architects.

scheme. In the first place we may consider the element of bridges and viaducts. Water-courses must be crossed; roads or paths must be carried over or beneath lines of railroads. A most interesting diversity in the structures designed to meet these needs has been achieved. The longest of these, Wellington bridge, must be excepted from the list. Its lack of monumental quality is largely for the reason that it serves an existing line of highway as well as the Middlesex Fells Parkway, which it carries across the estuary of the Mystic River. The great cost which a suitable bridge of masonry or metal construction would entail forbade the undertaking of it in that manner. When the time comes for its re-

Public Convenience Station—Blue Hills Reservation.
Stickney & Austin, Architects.

newal an adequate monumental bridge will doubtless be realized.

The bridge across the Neponset River connecting the Blue Hills Parkway with the Boston Park system by the way of Blue Hill Avenue at Mattapan Square was the first of an elaborate character to be undertaken for the Metropolitan Park system. The architects had distinguished themselves shortly before with the designing of the great Cambridge Bridge across the Charles River Basin, and more recently the noble bridge across the Connecticut at Hartford.

The Mattapan Bridge is more conspicuous in its relation to the highway than to the stream. Apparently for this reason it has been kept extremely simple in design, developed from flat walls with smooth-faced granite. A noteworthy feature is the unsymmetrical distribution of the arches in one wide span and two small semi-circular ones; the latter describe complete circles when reflected in smooth water.

More effective in treatment are the two bridges crossing the Mystic River in Medford, designed by the same architects, each with a single span and a very flat arch. Both are of re-inforced concrete construction. The first, commonly known as the Armory Bridge, has courses of blocks cast in concrete. The other, the Auburn Street Bridge, is confessedly a monolithic structure. Bridges of concrete present a comparatively recent problem in architectural design. The stone bridge must of course be the prototype, but unless the example is followed with due regard for basic differences in material the results are likely to be artistically defective. In this bridge the problem has been dealt with by the employment of simple means to obtain agreeable modifications in qualities of texture, and a diversity in light and shade in large elemental masses. The greater part of the surface has been rough-hewn, with a lightly contrasting smooth band to accent the course of the arch. Other examples of simple concrete construction shown in the same reservation are the Alewife Brook Bridge and the viaduct that carries over the parkway the Southern Division tracks of the Boston & Maine Railroad. In connection with the latter, the illustration shows the Auburn Street bridge in the distance framed by the arch. Another viaduct by the same architects carries over the Furnace Brook Parkway the tracks of the Granite Branch in Quincy, an interesting example of granite-faced construction with an oviform arch. The most important example of concrete bridge construction yet undertaken for the metropolitan system is the three-arched viaduct near Spot Pond in Middlesex Fells. This is notable as the design of the landscape architects who from the start have had the shaping of the entire park system. To carry an electric railway directly through the heart of a great wilderness reservation without inflicting serious mutilations is a most delicate task. At this point the

Police Station and Headquarters—Revere Beach Reservation.

Stickney & Austin, Architects.

Bath House and Police Station—Revere Beach Reservation.

Stickney & Austin, Architects.

Bath House—Nahant Beach Parkway.
Stickney & Austin, Architects.

crossing of a park road that had been laid out with particular reference to fine landscape qualities of woodland and water made it a difficult thing to deal with. The introduction of architectural qualities, simple in mass and of striking dignity, has avoided the effect of intrusiveness and has even enhanced the picturesque quality of the scene. One may fancy how the ordinary electric railway practice might have affected the scene with trestle-work or steel-girder construction, and then consider what has been escaped in an achievement like this. It should be said of all of these examples of recent bridge construction that the ultimate effect can be suggested only by imagining the relief of the crudeness that comes with newness by judiciously grouped planting with shrubs, trees and climbing plants.

A wholly different quality in bridge design, happily suggesting a Japanese influence, is represented in the graceful wooden foot-bridge that crosses the Abbajona River in Winchester. A foot bridge of quite another type is that of the Charles Eliot Memorial, on a slope of the great Blue Hill not far from its summit. A memorial to the man whose genius and whose unselfish devotion to a public-spirited cause gave him rank as a creator of the great metropolitan park system had been determined upon for this locality. It was felt by many that a site better related to the center of the great work that Eliot wrought would have been more appropriate. But the locality having been chosen it remained to carry out the idea in the most fitting way. A natural simplicity was most suitable to such a theme. The fundamental motive is that of a path encircling the hill not far from the summit, with tributary paths ascending the slopes and here converging at various points. In carrying this path across a shallow ravine it was necessary to construct a bridge. It was in association with this bridge that the memorial was placed in the form of a recess from the path with a suitable tablet integral with a plain wall of roughhewn granite. The impression is quietly pleasing; as lacking in ostentation as was the beautiful soul of the man whom it commemorates.

Headquarters buildings for the various reservations have contributed some of the most satisfactory architectural features of the metropolitan scheme. These have been studied with extraordinarily fine feeling, particularly with regard to their environments, each as a distinct problem. All the buildings in this class are the work of the same architects. At Middlesex Fells the picturesquely spreading structure with plastered walls and tile roof fits most admirably into the broad slopes of the adjacent woodland hillside—neither shrinkingly nor obtrusively, but with a fine well-bred reserve as befits the location upon a much-frequented highway, coupled with a sort of cordial attitude towards passers that well expresses its public relationship. On the other hand, the headquarters building for the Blue Hills Reservation, assigned to a more re-

Shelters and Sea Wall—Revere Beach Reservation.
Stickney & Austin, Architects.

Bath House—Nantasket Beach Reservation.
Stickney & Austin, Architects.

mote and retired location, suggests, with its extremely simple form and walls of rough-hewn granite, the dignified home of a well-to-do farmer who might be found at such a spot. Correspondingly appropriate is the wayside character of the stables, connected with the superintendent's house, on the Charles River Speedway. Beautifully studied with reference to its waterside character is the delightfully pictured headquarters building of the Charles River Reservation, near the Riverside Station in Newton, with its stone basement and arches for the passage of the boats kept within, and the low roof and timbered superstructure with plastered panels in the gables. In a similar style, recalling the wooden architecture of Norway, Switzerland and the Black Forest, in a charming blend most appropriate to the mountain-like neighborhood, are the shelters and the public-convenience station at the Blue Hills Reservation.

Most important, architecturally, as befits the extremely popular character of their purpose, are the structures designed to serve the various seaside reservations. How popular this purpose is may be inferred from the panoramic view of a portion of the Revere Beach Reservation, with its shelters in the foreground, shown on page 389. Several of these shelters, with their terraces, are located at intervals along the beach, contributing very handsomely to the civic character of the Reservation, with their effect of utility developed as motives for dignified embellishment, which lends itself well to the holiday quality of the seaside spectacles that enliven the scene throughout the summer. The first of these terraces was constructed in front of the great bathhouse, separate subways for the two sexes carrying the bathers beneath the driveway and promenade, directly to the beach. This bathhouse, the largest and most complete establishment ever designed for public bathing, well expresses its character as an important center of recreation for the people. The adjoining high brick walls enclose many hundreds of dressing-rooms. A completely equipped emergency room, shower-baths and other facilities for promptly serving the throngs that resort to the building are features of the establishment. A neighboring building is jointly occupied as a police-staion and laundry. A notable feature is the way in which the laundry chimney has been masked by the tower. A chimney of the factory type is necessary to the operation of the elaborate machinery whereby thousands of bathing-suits are promptly washed, sterilized, dried and returned to the bathhouse for use. The organization of these buildings offers a significant instance of the way in which a great public work can be thoroughly co-ordinated in its various elements and efficiently administered. In planning for this, and in manifesting the purpose in terms of art, the architects have achieved in these three related structures—the bathhouse, the laundry and police station, and the terrace with its shelters—an exceptionally noteworthy civic group, shaped to express the holiday character of the great public resort which here has been developed out of the squalid and promiscuous origins that marked the days of private occupancy of the water-front.

Nantasket Beach stands second only to Revere as a metropolitan reservation, resorted to by great throngs throughout the summer. Its location, however, is isolated, and it has not the physical connection with the rest of the metropolitan system that distinguishes the other seaside pleasure-grounds. Hence the architectural developments to meet the public

demands similar to those at Revere are more palpably utilitarian in quality. The laundry, for instance, is a plain industrial-looking brick structure, and the bathhouse is of wood and shingled, attractive in a somewhat reticent fashion, but with a sort of holiday aspect and a suggestion of civic utility that an ordinary commercial bathhouse would not be likely to possess.

The entire water-frontage of the city of Lynn, on the ocean side, has been developed for recreative uses for the metropolitan system. The Nahant Beach Reservation is an element in this development. Its bathhouse has a delightful festal character, well suited to its admirable setting beneath sunny summer skies. It is a captivating utterance of the sense of vernal gaiety. Its joyous implications are heightened by a brilliant contrast of gleaming white-walled surfaces and red-tiled roofs, intensified by the sparkling accents of rich and well-disposed decorative reliefs, in the designing of which maritime symbols are fittingly in evidence.

Sylvester Baxter.

CHARLES ELIOT MEMORIAL—GREAT BLUE HILL.

Boston. A. W. Longfellow, Architect.

The Small English Home as a Place to Live In—Its Seamy Side

In the April issue this subject was viewed from the American point of view. The article below states in a rather interesting way how the matter is regarded by an architect in England, who dissents from some of the current architectural practices of contemporary English domestic architecture.—Editors of the Architectural Record.

"Is five feet six inches too high for a Dining Room—if not, why not? Ask ....." and there follow the initials of a designer of English country houses whose work has been widely exploited by a journal which includes "arty" architecture—if I may use the words together—amongst the other matter between its covers. The question and answer quoted were doubtless clipped from the best of architectural publications "The Purple Patch," the *rag*—not the journal—of the Architectural Association. The question is important and by inference we are able to settle a doubt which has often arisen in our minds as to the significance of the word "short" in the well-known assertion that "art is long and artists usually short." What artist that has read the line has not felt it to be a grave insinuation against the financial soundness of his professional fraternity? Perhaps, however, its author was referring to our average stature—but we could never believe him guilty of the impertinence. Alas! it would seem probable for here we have evidence to support the latter theory, because if artists—which term is supposed to include architects—were tall, as tall as other people, would they not consider five feet six inches about the right height for a dining room or any other room and let it go at that? But the question has been raised and we turn—as all wise architects invariably must—to the great examples of precedent, recent examples of course, which have appeared from time to time in the architectural periodicals and others which publish designs for houses, and we find—what *do* we find? That, hitherto, in many cases, five feet six inches has been considered far too high for a bedroom, at least at the side where the window comes, so why not, also, too high for a dining room? In such a design as the "Country House" (Figs. 1 and 2), how high is any room; and does it contain either bedrooms or a dining room? Should one enter such a house could he stand up in it, or would he have to be as Apollodoros found the goddess in Hadrian's design for a temple, necessarily seated because the head would go through the roof if standing?

Nothing could be easier than to attack the type of small house which has grown up in England during the past decade or two, which consists principally of a vast roof with numerous chimneys resting upon walls not much higher than the curb of a cyclone cellar, in which appear rows of little windows, reminding one of the side of a tram car, and elaborated with the sort of detail so much approved of by the school of "new art." Many of the architects who designed such work ten years ago would gladly repudiate it today, though they know it did a certain amount of good to the cheaper classes of houses in general by tending towards the elimination of many of the absurd features which formerly had been considered a necessary part of residence design. It must be, however, a matter of some difficulty to convince the enthusiast upon modern English work that many of the houses by the best known architects—particularly the small houses—if better in appearance than the kind with the little green shutters with heart shaped holes cut in them and the green barrel to catch the rainwater, are far from being what an Am-

Fig. 1. Country House.
M. H. Baillie Scott, Architect.

erican would consider well constructed or well planned, convenient or comfortable; so many of us would gladly forget these disadvantages and remember only the charm which the design adds to the scenery. It must be borne in mind that England is not a country which could be considered sunshiny or bright. The climate is rainy and dull; there is not much hot weather and to a New Yorker or Chicagoan it could never be considered cold. During the spring and summer the sky is frequently overcast while during the late fall and the winter a great deal of rain and fog is usual. The principal considerations, therefore, should be to provide ample lighting and good natural ventilation, guard against dampness and draughts and devise a means of uniform heating. In a way, all of these things have received a certain amount of attention, but, again, to the American, or to anyone who has lived in America or Germany, the way does not lend itself to praise or appear very efficient.

The Englishman is nothing if not an economist and he sees no reason to go to the expense of a basement under a house unless he can put the kitchen in it, and he discovered during the Victorian days that there is only one place where the kitchen may not be placed and that is underground; it may be planned on the roof or off the main entrance hall, as it frequently is, but it must not be in the basement. If the kitchen may not be placed in the basement, nothing may and hence there need be no basement. Its existence for the purpose of keeping the house dry and as a place for fuel storage and the accommodation of a modern heating and ventilating system is not, as yet, recognized. In the case of the most modern English houses the whole site is covered with a raft of concrete consisting of broken brick and sand and *some* cement is added when the Clerk of the Works is watching. A damp-proof course to the walls designed to prevent the wet from rising in the wall is sometimes effective in the better class of buildings where asphalt is used, but the projecting slate course in the houses of moderate cost serves often as a water table to catch the rain, which runs down the wall, and conduct it under and into the wall above the course. Nine-inch brick walls are considered sufficiently thick, and hollow walls or walls lined with hollow bricks are unusual. Furring is almost unknown. The plaster is applied directly to the walls. One staircase is still deemed enough for a house costing less than ten thousand dollars. Whether a vestibule is a necessity or a luxury is an unsettled question. The entrance hall which is, as a rule, not heated even by a fire place, communicates directly with as many rooms on the ground floor as possible, including the kitchen and a small toilet room (Figs. 3 & 4). Through this entrance hall every occupant of the house

Fig. 2. Rear View of Fig. 1.

must pass in going from one room to another as communicating doors are considered unnecessary. Trunks, furniture, the family washing and house cleaning utensils and occasionally the chimney sweep pass through this hall, for, as before stated, there is but one staircase. The dining room is often planned at one side of the entrance hall and the kitchen at the other so that the maid, arrested in the act of serving the soup, may place the tureen upon the stairs while she answers the bell at the front door, though this scheme is being rapidly done away with in favor of the American plan of placing the china closet or butler's pantry between the kitchen and the dining room. Sometimes the love of the picturesque leads the architect to arrange some of the ground floor rooms at different levels from the others to the infinite exasperation of the housekeeper while the male occupant as he falls into it in the dark is reminded of Burgess's rhyme:

"I wish that my room had a floor,
I don't so much care for a door,
But this walking around
Without touching the ground
Is getting to be quite a bore."

At the back of the house there is the "Scullery", a kind of laundry which includes the sink where the dish washing is done and a number of cells for the storage of fuel, provisions and boots and shoes and an outside Servants' W. C. of which the pipes freeze and burst every time there is a cold snap.

Figs. 3-4. Plans of House Shown in Fig. 5.

Fig. 5. A House in Surrey.
E. Guy Dawber, Architect.

Upstairs the planning is much the same; bedrooms are not provided with closets, even the linen closet is frequently omitted; one bath room does for as many as six or seven bed rooms and is used by family and servants.

The typical English living room or bedroom has but one door and one window or one row of windows and fortunately but one fireplace. The door is of deal and when the house is five years old, the door does not fit its frame by nearly a quarter inch. The fireplace is for heating and ventilating but during the winter months not more than one-third of the room can be warmed by this means, while, as to ventilation, one can only say that in different cases fireplaces probably give very different results. It is a well-accepted theory that fireplaces are one of the best means of house ventilation. The writer's experience does not lead him to that conclusion; on the contrary the upper part of a room has been found to be several degrees warmer than the lower, and the air in the upper part, especially above the tops of the windows, to be stationary, whilst around the door and window and between these and the fireplace there is a rapid current of cold and damp air. One's head and shoulders are warm while his shins

are cold and his feet almost freezing. The effect of such "ventilation" is to be observed as to the people, that the number who suffer from rheumatism in the legs and feet is enormous. Of course, the native will not admit that it is rheumatism, or due to the fireplace and the draughts along the floor, but claims it is gout and his miseries chargeable to the amount of malvoise consumed by his tippling ancestors. The windows are often the casement, which, if it opens inward, drains its exterior upon the floor; if outward, is forever breaking fastenings or refusing to shut, and now and then torn by the wind from its hinges.

Most architects could only commend the client who will sacrifice some comforts and alleged conveniences for the sake of architectural effect—and a row of casements is undoubtedly more pleasing than double hung sashes and few would find cause for quarrel with the one who, having a good thing, refuses to experiment with something which may or may not be as good as what he possesses. A fire of blazing coals is not only cheerful in a climate as dull as that of England but the fireplace with a good mantel is often the most notable ornament to the room, while a radiator is a hideous thing.

The rooms at a level a few steps lower than the ground floor are usually so arranged to give better proportions to a very large room or because the house for the sake of picturesqueness is set upon the side of a hill, perhaps the windows to such rooms may appear like transoms from within and cellar windows from without, perhaps, too, the rain which runs down the hill runs in through the entrance hall, which is sometimes below the level of the ground. We suspect there is difficulty about head room in the second story, but still we think that for a row of workmens' cottages where economy must be studied they are not bad. It is not, perhaps, until we discover that such houses have been built with no regard to economy and are not the homes of the poor who are forced by circumstances to live the simple life nor the homes of those who live that kind of life by choice, but are mere scenic efforts, the affected imitations of rows of fishermens' hovels done on a grand scale and at great expense—sometimes to the extent of a large country house, that we begin to wonder whether it would not be possible to have all the attractive features equally as artistic and at the same time avoid using the entrance hall as a serving room, provide it with other means of warming than by the steam which escapes from the boiling cabbage on the kitchen stove; and to get along without answering in the affirmative the question:—"Is five feet six inches too high for a dining room?"

A number of American ideas have been instilled into the minds of English house designers, such as placing the butler's pantry between the kitchen and the dining room, as previously mentioned; others being to introduce a lobby between the hall and the kitchen so that the latter is closed off from the former by at least two doors; and providing the doors with self-closing checks, but more might be welcomed.

In a country with a cilmate consisting of three months of summer and nine months of bad weather a vestibule seems a necessity to a modern—or should we say effete?—home; a warmed, dry basement and the bottoms of the joists raised far enough above the ground to admit light and air below them would save many a floor from rotting and many an Englishman from rheumatism—I mean gout—and his ancestors from a reputation of vile intemperance. Finally, the introduction of a back or service stairs, windows at two sides of a corner room would brighten up dark corners in those coated with dismal papers and a change in the depth of tone of the papers themselves would be desirable and may come—when gas is substituted for the soot producing soft coal fire—and that day still seems distant from the present in good old England.

Francis S. Swales.

FIG. 6. MECHANICS' NATIONAL BANK (1876).
Albany, N. Y. Russell Sturgis, Architect.

Russell Sturgis's Architecture

Very likely the majority of the professional readers of the Architectural Record are unaware, at least of their own knowledge are not aware, that the late Russell Sturgis ever did any architectural work at all. His work in that kind was, in fact, with one not specially significant exception, all completed a full generation ago. According to the common computation of a generation as a third of a century, that would take us back to 1876 as the time when his architectural activity ceased and determined. And, as the new generations may need to be reminded, 1876 was the occasion of a considerable architectural awakening. For it was the year of the Centennial Exposition at Philadelphia, which was quite as influential in its effect upon architecture and art, though in a widely different way, as the Columbian Exposition at Chicago, seventeen years later. The architectural effect of the Chicago fair was, of course, to bring us back to our classical moorings, to show us, howbeit rather in the buildings than in what was "exposed" within them, what great effects there were still to be elicited from the old Greco-Roman forms, how we might revive, if not in actual and costly marble, yet in specious "staff," remains of the Forum and the Palatine, and realize the dreams of "Dido Building Carthage" and "Regulus Leaving Carthage." One result of the Philadelphia fair was to teach visitors more about the importance of the Continent of Europe in comparison with the British islands. It is not without significance that the centennial year of our political Declaration of Independence should have brought with it our architectural Declaration of Independence. For it was in that year that Trinity Church in Boston was built. The immediate vogue and general acclamation with which the design was received fixed the course of American building for the next ensuing decade. This was the first real break with the "colonial" building tradition. Up to then we had followed the architectural fashions of the mother country, importing even our French and Italian Gothic by way of England. And our architectural Declaration of Independence thus followed our political by the space of just one hundred years.

As an architect, Russell Sturgis preceded this revolution, which afterwards, as a critic, he eagerly promoted. With one exception, and that a supplement to what he had done already, he had ceased to design before Richardson began. It is true that his technical preparation for practicing architecture had been gained in the office not of an Englishman, but of a German, though I think you would not deduce this fact from any of his own work. But Leopold Eidlitz, though a German, and in so many respects a German of the Germans, was one of the most enthusiastic adherents and promotors of the Gothic revival, and found more aid and comfort from his fellow architects of British or American training and traditions than of German. Cologne was to him the ultimate historical achievement of the art of architecture. But he was more than willing to join hands with those of the English revivalists, who, whether inspired by Pugin and ecclesiasticism or by Ruskin and romanticism, were remaking, in the fifties and sixties, the architecture of Great Britain, primarily in church building, but extending their attempts to all departments of secular work, endeavoring to show that Gothic was good for houses and public buildings, as well as for churches. This was what Ruskin was preaching in England and Viollet le Duc in France. Owing to Ruskin's "Seven Lamps" and "Stones of Venice," and to Street's "Brick and Marble in Italy," and still more to the work that young British architects were doing under the influence of these writings, the younger American architects of the early

sixties betook themselves more and more to Italy for the motives and the treatment of their secular designs in Gothic. The earliest, and perhaps the most successful, of these essays was Mr. Wight's New York Academy of Design. Towards the end of the decade, the earlier years of which saw the erection of this work, its author was commissioned to do the Street Art Building for Yale, and Mr. Sturgis to do two dormitories, the donors and sponsors of which were, respectively, Farnam and Durfee, with a chapel at the angle which was to bear the name of its donor—ing officially dated 1869 (Fig. 1). Possibly it is the best of the three. The composition is as effective as could be expected from the conditions, the stairways and their entrances being not only unmistakably expressed, but so disposed as effectively to punctuate the rugged expanses of the brownstone fronts, a punctuation to the emphasis of which the chimneys also contribute. These are relieved without being enlivened to the destruction of repose, according to the temptation to which so many of the Victorian Goths of that time succumbed. The angle turrets detach the gables, the

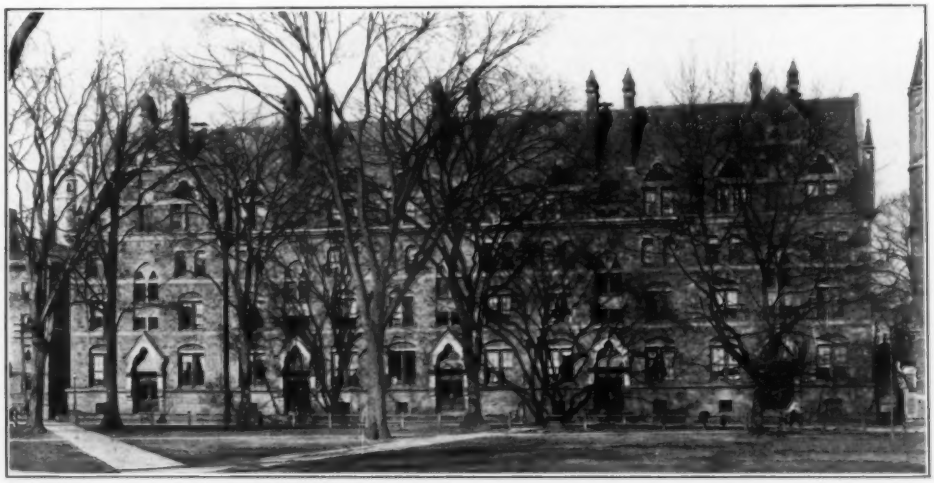


FIG. 1. FARNAM HALL, YALE UNIVERSITY (1869).
New Haven, Conn. Russell Sturgis, Architect.

Battell. Whether the commissions were conferred and the design conceived all at once, I do not know, nor does it matter. It is evident that the three buildings were designed with reference to one another and to the total effect of all three, that they were the most successful buildings that Yale had up to that time produced, and that they have had an excellent influence in the way of moderation, restraint, conformity and harmony on such of the subsequent architects of the university as would submit themselves to that influence. Farnam is the earliest of the three, be-light stone of the wrought work and the dark brick of the tympana of the openings offer enough and not too much of contrast with the rough brownstone of the wall fields. Very nearly a model of a college dormitory, one says, with just enough animation not to interfere with its dignity and sedateness.

Perhaps this earliest of the dormitories is the best. It is easier to make a structural effect with sandstone rubble than with smooth brickwork, for one thing. For another, the architect had the rather unhappy thought, in the second of his buildings for Yale—the Dur-

fee Hall—of distinguishing and emphasizing, by projection, the staircases which, as we have seen, were sufficiently distinguished and emphasized by treatment (Fig. 2). It seems that he would have done better to leave these in the single plane of the front, and that he need not have been afraid of the resultant monotony, which he might have relieved by the discreet application of color, after the methods of the north Italian work, which pretty clearly inspired the design. North Italy appears most confessed in the detail of the entrances, with their doubled columns and the "punched" tympana of plate tracery. Moreover, the projected walls have hardly visible means of support in the doubled columns. A porch, projected from the general plane, would have answered every purpose of relief that is answered by the actual arrangement, while the doubled columns would have been quite adequate to carry it, and there would have been evaded the difficulty that is met by the cottagelike gables. These, in turn, involve three different shapes and sizes of dormers, which are injurious to repose and tend to confusion. They are redeemed from utter confusion by the effective fenestration and the insistence on the horizontal string-courses that run through and emphasize the expanse, and by the general sobriety and decorum of the work, qualities which were by no means common in the revived Gothic of 1870, nor, indeed, in the architecture of Yale, whatever the style, at a much later date. Durfee Hall is not prevented from being good by the fact that Farnam is even better.

FIG. 2. DURFEE HALL AND BATTELL CHAPEL, YALE UNIVERSITY.
(Durfee Hall, 1870.)
New Haven, Conn. Russell Sturgis, Architect.

The third of the group is fifteen years later than the second, and the last of its author's architectural works. Lawrence Hall (1886) (Fig. 3) has virtually the same "layout" and the same motive as Durfee. One notes that the criticisms which the earlier invited have

been obviated in the later, or partly so. At least the porches are projected without carrying their superstructures along to the full extent of the projection. The porches are to that extent more satisfactory, and the crowning of the lesser projection of the staircases is a flat roof and a balustrade instead of a gable, thus avoiding the tormenting of the skyline with three kinds of roof windows. These things are clear improvements. But if, as in Farnam, the projections were withdrawn to the face of the wall, and the distinction between staircase and dormitories made merely by the treatment of the openings, the effect would be even better than it is, especially if the chimney stacks of the earliest building had been retained as the animation of the skyline. Not that the effect is bad or that all three do not hold their places with credit and respectability in the more recent competitions of the university.

FIG. 3. LAURANCE HALL, YALE UNIVERSITY (1885).
(Durfee Hall to the left, Phelps Hall to the right.)
New Haven, Conn. Russell Sturgis, Architect.

Battell Chapel comes in between Durfee and Farnam, being some five years later than the younger of them, and, hence, very likely, an afterthought. But it might very well have been a part of the original scheme. In material, it conforms to the earlier of the dormitories and if it had been flanked by Farnam's on both sides, that is, by buildings in its own combination of rough brownstone and wrought work of lighter stone, the total effect would have been better. As it is, the chapel wins the praise of respectability and conformity and hardly aspires to any other. For the apsidal chancel, in its exterior, at the outer or street corner of the quadrangle, is a much more effective architectural composition than the front or the flank of the chapel, as seen from the inside (Fig. 4). This outer apse, indeed, fulfills very effectively its function of ultimate abutment and stoppage of the long range of dormitories extending all across the "Green," as happy a terminal feature, indeed, as Mr. Haight's much later Phelps Hall is a central feature. To appreciate the value of the chapel in this respect, you have to visit the spot.. The photograph does not do justice to, nor does it exhibit, this architectural function. But it does show an ordered,

aspiring and picturesque mass, of which, again, it is one of the highest praises that the animation does not exclude repose. And all this work for Yale is exemplary in its moderation and discretion. The more the pity that these qualities have impressed themselves so little on succeeding architects.

but full of suggestions how the banality of that edifice can be obviated. The main banking room is avowed in the big mullioned windows of the flank, though it seems to be denied in the two separate stories of the front. The front, indeed, might perfectly be that of a dwelling house. The banality of the type is very

FIG. 4. REAR OF BATTELL CHAPEL, YALE UNIVERSITY (1876).
New Haven, Conn. Russell Sturgis, Architect.

Very much more pretentious and much more successful in its pretentiousness is the picturesque Mechanics' Bank, in Albany, which no sensitive wayfarer can have passed without being moved to some gratitude that its owners should have been moved to employ so artistic an architect. In dimensions, and, indeed, in "lay-out," it is only an ordinary three-story house. successfully circumvented by the fenestration, by the quality of the detail, and by the picturesque corbelled turret which emphasizes and adorns the angle. It is a very grateful object in Albany, and would be a grateful object in any city of the class of Albany as an addition to its street architecture, and as well with regard to its more specific expression as a "banking house." It has also a very

interesting interior, for the success of which Mr. Sturgis always gave the larger share of the credit to Mr. George Fletcher Babb, who was associated with him in the design. This interior was an attempt to make and express a thoroughly fireproof construction before the days of steel and tile arches, and when rolled beams and brick were the most eligible materials at hand. After a generation, With one exception, all the buildings we have been looking at were designed and built within a single decade, after which their author renounced practice and took to theory.

Doubtless he did well. We could spare many more such buildings better than we could the "Dictionary of Architecture," the "History of Architecture," and, above all, the continual

FIG. 5. HOUSES IN WEST 57TH STREET, NEAR 5TH AVENUE (1875).
New York City. Russell Sturgis, Architect.

the interior is as well worth inspection as a solution of that particular problem, even with reference to modern uses, as the exterior merely as a picturesque bit of street architecture.

All these things are respectable and creditable. But they by no means indicate that their author forsook his true vocation when he betook himself to discussing architecture instead of doing it. None of them suggests that "necessity to create" which is the birthright of a born designer, and which takes in his work unexpected and yet inevitable shape. stream of well-informed, informing, elucidative, suggestive and appreciative comment which, as the readers of the Architectural Record know so well, Russell Sturgis kept playing, for the later years of his life, upon the works of his colleagues who continued in the practice of the art the practice of which he himself had abandoned. There are more architects as good as he had been than there are critics as good as was, and, to the progress of architecture, his critical work was even more helpful than his architectural work.

Trinity's Architecture

How unlucky, for this whole community, that the first fruits of a change in the rectorship of Trinity should be the raising of all this pother about St. John's Chapel! The comparative importance of the Trinity estate on Manhattan Island has been diminishing for more than half a century. Probably its absolute importance also as measured by revenue. While every other "piece or parcel of land" in Manhattan has been growing in value and utility, this alone is stationary, if it be not actually receding. Elsewhere on Manhattan land superseded for one use has become still more profitable for some other. Who can doubt that "the Dominie's Bouwerie," in secular hands would be now yielding a great multiple of its actual income? There is only one possible explanation. The "temporalities" of Trinity have not been well managed.

It was not always thus. No sharper contrast could be pointed between a successful past and a failing present than the final proposal to abandon St. John's Chapel, a proposal which, it is quite impossible to dissemble, has been adjourned only in deference to an aroused and outraged public opinion. Because St. John's was the trophy of the greatest of the secular successes of Trinity. For the region of which it and the beautiful park in front of it formed the central feature became a great possession, not by inheritance nor by the "unearned increment," but by enterprise and foresight. It was the actual creation of values.

Mr. Henry's pictures of the church and park in their glory, which they retained down nearly or quite to 1840 are as authentic as they are pious memorials (Fig. 1). From that meridian of its glory, the neighborhood hastened, or rather gradually declined to its setting. First Washington Square, the reclamation for residential purposes of the Potter's Field, then Madison Square usurped the sceptre of fashion. Forty odd years ago, I knew an old lady, then residing in South Washington Square, where she continued to live until she died, who used to describe the consternation and commiseration she had excited among her old neighbors forty odd years before that, when, upon her marriage, she and her bridegroom had migrated northwards and braved the perils of the wilderness of Washington Square. In fact, this second resort of fashion was much more slowly built up than the first. You may see that to-day by walking into the square and observing that, while the remaining old buildings of the south side are still as "Colonial" as the relics round about St. John's Park; on the north side the "Greek revival" is already in full force and effect.

At any rate, after the flitting really set in, St. John's Park, we must admit, could no longer be "the court end of the town," as Dr. Dix calls it in his "History of Trinity Parish." It could no longer be the Belgravia, but it might have become and remained the Bloomsbury. In fact, those who have had recent occasion to observe the London Bloomsbury have had occasion to note that the present noble and ducal owner thereof has exhibited much more of the spirit of enterprise than has been exhibited by the vestry of Trinity during these last two generations; one might say during the last three, or since the spurt of enterprise of which St. John's Church and Park are the trophies died out. The genius who effected that transformation has had no successor. One says Bloomsbury. But, in fact, the Trinity estate combines an inland quarter, with a water-front. The improvement of the water-front with commercial erections seems to have been perfectly compatible with the maintenance of the inland part as a highly respectable, if no longer a "swell," quarter of residence. Its proximity to "downtown," of which it is within walking distance,

Fig. 1. St. John's from the Park (about 1835).
(From the painting by E. L. Henry.)

would have kept it as attractive as it even yet is to the few families which, having settled there in the days of its prosperity, refuse to be dislodged, to a very considerable multiple of their number, considerable enough to have left no question of a "congregation" for St. John's; whereas now the bulk of the surrounding population is of the poorest and least profitable sort of tenantry and the inheritance and acquisition of Trinity may fairly be described as a slum. It is a lame and impotent conclusion, made more so by the threat on the part of the corporation to go out of the real estate business altogether. This is a threat to turn over one's patrimony to somebody who knows how to make a better use of it.

As the first impetus to the development of the region was the establishment of the church and the park, the last was the abandonment of the park, just forty years ago. Commodore Vanderbilt's million was the perfectly inadequate mess of pottage for which the birthright of the corporation was sold. The consent to the degradation was a most pitiful modern instance, on the part

Fig. 3. Broadway Front of St. Paul's Chapel (1766).
McBean, Architect.

Fig. 2. The Hudson River R. R. Freight Station (1869).
St. John's Park, New York.
J. B. Snook & Son, Architects.

of incompetent stewards, of the worship of the Golden Calf (Fig. 2). And one could not point to a more exact, though highly inartistic, perhaps because highly inartistic effigy of the Golden, or, rather, of the Bronze Calf, than the highly ridiculous "Vanderbilt Bronze" set up for worship on the west side of the freight station. This was instigated by the hero worship of one now forgotten De Groot, an unfeigned and sincere worshipper of the Golden Calf, in the shape of commercial success, to whose instigation is also due the rather ridiculous bronze Franklin in Printing House Square. But the expense of the Bronze Calf on the

site of St. John's was borne by the Commodore or by his stockholders.

The value of a park as a social antiseptic was not so well understood, very likely, in 1868, as it is now, although, even then, there were object-lessons enough of that value in the prices of land round about Washington Square and Stuyvesant Square and Gramercy Park and Madison Square to serve as a guide and admonition to Trinity. To turn the park into a freight station, in particular, with the daylong procession of trucks on all sides of it, was to condemn all the surrounding property as no longer eligible for human abodes. From that day to this there has been no sign of any adequate or comprehensive effort to make a more profitable use of it. An individual owner who should have dissipated his inheritance after this fashion would be in danger of proceedings, by

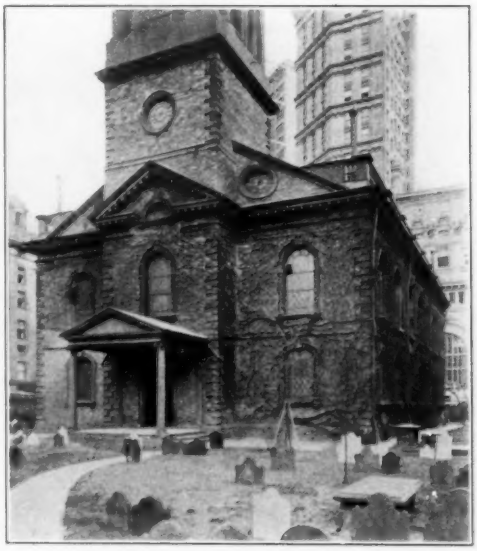


Fig. 4. Churchyard Front of St. Paul's Chapel.

Fig. 6. Trinity Offices, St. Paul's Churchyard (1887).
C. C. Haight, Architect.

"de lunatico inquirendo" or otherwise, on the part of the heirs to arrest the dissipation. The occasion is apt, however, of the threat to demolish or abandon St. John's to make a survey of the architectural holdings of Trinity. The inquiry one finds of the greatest interest. Let us pursue it chronologically.

St. Paul's is much the oldest church (Fig. 3), and must be nearly the oldest building on Manhattan Island, having been begun in 1764 and reported "completed" in 1766, though the steeple is a much later addition, being not far from contemporary with the steeple of St. John's, and possibly by the same author. I suppose I am the only person in New York who, at this writing, knows the name of the original architect of St. Paul's a small piece of knowledge which I hasten to share with the readers of the Architectural Record. I came across it, quite by accident, not long ago, while rummaging the files of the late John Durand's ephemeral magazine of culture, the "Crayon," in search of something else. In the files of that periodical

Fig. 5. Interior of St. Paul's Chapel (Decorated for Christmas, 1908).

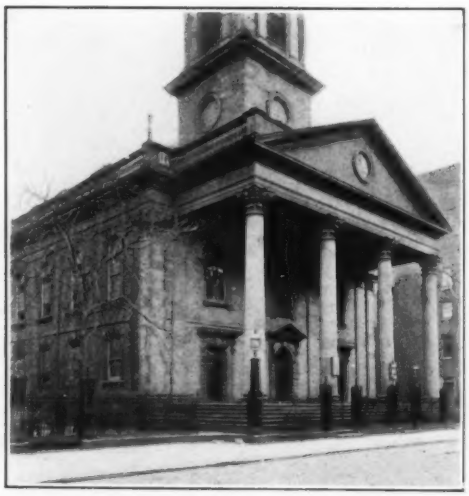


Fig. 7. The Portico of St. John's (1803). John McComb, Architect.

for 1857 there is a note, signed "W.," which I transcribe:

Last week, in an accidental street conversation with Mr. Isaac Bell, now ninety years of age, and in full vigor of body and mind, I was agreeably surprised on learning from him the name of the architect of these edifices. It was McBean who was both architect and chief builder of St. Paul's. From the date and, from the circumstances I have already mentioned, I doubt not that he was also of the church in William Street. The actual building was beyond Mr. Bell's recollection, but he knew McBean after the Revolution, residing at New Brunswick.

When John Adams was traveling southward from Boston to the meeting of the first Continental Congress in 1774, and meeting at each remove a higher stage of social civilization than that he had left at home, a conviction against which the good Puritan strenuously struggled, but which was evidently borne in upon him all the same, traveling in a triumphal progress which he never, to the last of his ninety years, forgot, and came upon New York, the observations of his diary are especially worth reading. The reader readily perceives that as his great grandson has recently owned about himself, the austere man, far from following a multitude to do evil, or, for that matter, good, had a probably inherited and certainly transmitted tendency to opposition, was, in the delightful phrase of his descendant, "perhaps inclined to be otherwise minded." *Nil admirari* was the attitude he struggled to maintain among what now seem to have been the moderate carnal glories of colonial New York and of colonial Philadelphia, as his kinsman, Edmund Quincy, similarly tried to "bear up" against the superior social civility of Charleston, S. C. Here is what John had to say about the then new St. Paul's:

We then went into St. Paul's. This is a new building, which cost eighteen thousand pounds, York money. It has a piazza in front and some stone pillars, which appear grand; but the building, taken altogether, does not strike me like the Stone Chapel, or like Dr. Cooper's meeting house, either on the inside or outside.

It may be necessary to supplement the diarist by explaining that to translate "York money" into sterling you subtract one-fourth, so that the "eighteen thousand pounds" dwindles to £13,500, which was yet a great sum in those days. And it is necessary to correct him by explaining that the "stone pillars" were and are, in fact, of brick, covered with stucco. Perhaps some Boston antiquarian can identify "Dr. Cooper's meeting house." If it was the "Old North" it is perhaps fairly comparable with St. Paul's; if the "Old South," one disables John at once as an architectural critic. By the way, John found the "new Dutch church" "the most elegant building in the city." One needs a New York local antiquary to identify that. It may have been the other work which Mr. Isaac Bell identified as McBean's. In that case it can hardly have been the "Middle" Dutch church in Nassau Street, demolished to

Fig. 8. Interior of St. John's Chapel (Decorated for Christmas, 1908).

make room for the building of the Mutual Life, which, in its secularized condition, served as a post office until the erection of Mr. Mullett's masterpiece in City Hall Park, since McBean's effort was in William Street. To be sure, the lot may have run through. As for the "Stone Chapel," properly King's Chapel, that shrine of the Pink Woman of Anglican Prelacy which Governor Shirley had struggled hard to rear and had even

Fig. 11. Trinity Church House (1873).
Trinity Place and Church Street.
Richard M. Upjohn, Architect.

imported a British architect to design, one Peter Harrison, a pupil of Van Brugh's, it was the horror and scandal of Puritan Boston. It is quite possible that the austere Adams had never seen the "inside," as doubtless he often had of "Dr. Cooper's meeting house." And as to the outside, it was not much to look at in his day, except for being, as it doubtless was, the only building of hewn stone in Boston. For, although the body of the church—which is a mere

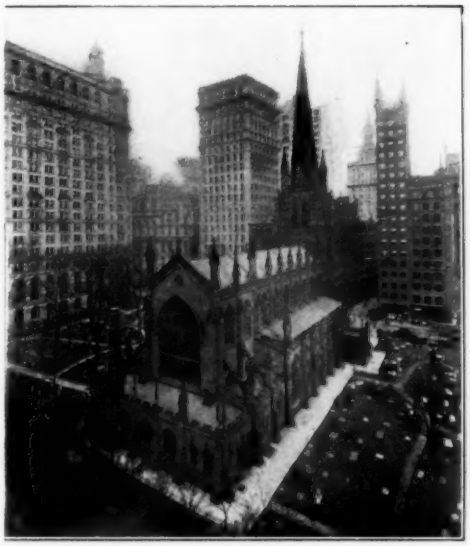


Fig. 10. Trinity from the Southwest.

parallelopiped of cut granite and shows no architecture at all—had been completed in 1749, the portico was not added until 1790, and then only in wood, and the portico was the only architectural feature of the design, excepting the steeple, which has not been added, even to this day. So that it must have been Bostonian chauvinism which made the Stone Chapel to "strike" the diarist harder than

Fig. 9. Interior of Trinity Church (1839-46).
Richard Upjohn, Architect.
(Reredos by F. C. Withers, 1876.)

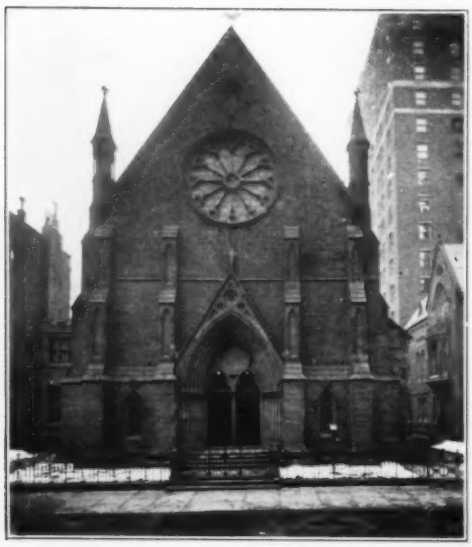


Fig. 12. Trinity Chapel (1855). West 26th Street, New York.

St. Paul's. St. Paul's was, in fact, even with the steeple, its most admirable and artistic feature, still unbuilt, a highly respectable edifice in 1774, unparalleled to the northward, though possibly surpassed by one church in Philadelphia and two in Charleston. It is a highly respectable edifice even yet, imposing enough in the design of the Broadway front to make one wish that the "order" of the portico had, in fact, been built of the stone which the Bostonian fancied that he saw. The portico loses some of the attractiveness that belongs to its design by being so evidently excrescential and irrelevant to the church. One finds quite as attractive the more homely and vernacular other front, the front on the churchyard, which is simply a straightforward piece of masonry, without the pretension of stucco or veneer (Fig. 4), and which, with the addition of the steeple, still forms an "elegant" and attractive composition. The interior, *pacé* the Bostonian critic, is an excellent example of the British taste of its time, carried out more extensively, as well as more sumptuous-

Fig. 13. Rear of Trinity Chapel. West 27th Street, New York.

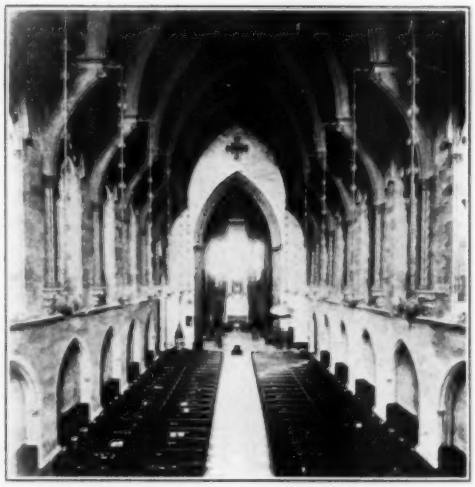


Fig. 14. Interior of Trinity Chapel.

ly, than that of the "Stone Chapel," interesting as that interior also is as a specimen of Georgian architecture. Christ Church, in Philadelphia, has been restored during the nineteenth century, and comparisons with that are not possible. But we may well take leave to doubt whether "Dr. Cooper's" or any other "meeting house" in the Boston of 1774 presented so decorous an interior, one so well abreast of the best British tradition of the time, the only tradition about which the colonists knew or cared, as did the interior of St. Paul's (Fig. 5). And the interior which John Adams saw in 1774 is, to all intents and

purposes, the interior that any New Yorker may see in 1909 by the simple expedient of turning in for a moment from the madding crowd's ignoble strife, at the corner of Broadway and Vesey Street, and resting awhile in the shadow of an earlier and quieter time.

One must not leave St. Paul's without taking note of the modest range of buildings that occupies the westward end of the churchyard, and that is restricted in

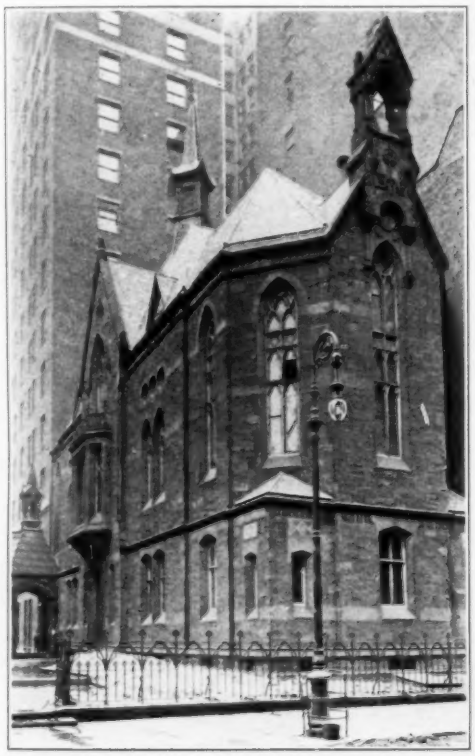


Fig. 15. Church School, Trinity Chapel.

depth to the irreducible minium required by an avoidance of desecration of the graves. These are the "Trinity offices," succeeding, in the same area, predecessors to which nobody could attach any architectural, hardly any historical, interest. The area of this fringe of buildings being thus determined by relevant sentimental considerations, the height may be supposed to have been limited by considerations of the same kind, though specifically different. Land exempted

Fig. 16. St. Chrysostom's Chapel.
7th Avenue and 39th Street, New York City.
Richard M. Upjohn, Architect.

from taxation upon the ground that it is held for religious and charitable uses cannot be devoted to bald money-making without exciting invidious inquiry. So, when Trinity rebuilt its "rotten row" of offices in St. Paul's churchyard, it very wisely limited them to the area of the replaced offices, though the ordinary commercial altitude had in the meantime, even twenty years ago, been much enlarged. Not only the "riparian" owners, but the casual passer, has reason to be grateful for this decision of the corporation and for the admirable use its

Fig. 17. Interior of St. Chrysostom's.

architect made of his wisely restricted opportunity. There is nothing better about St. Paul's than this modest red brick fringe of red brick, three story, shallow buildings, whether one takes the view westward across the churchyard (Fig. 6) or the endwise view of the new row, whether from Vesey Street or

Fig. 18. Front of St. Augustine's Chapel (1877). East Houston Street.
Robertson & Potter, Architects.

from Fulton Street. In fact, one may say that if the erection of the picturesque and cloistral row had had no practical purpose at all, instead of having a very pronounced practical purpose, and had been designed merely as a dignified and appropriate architectural screen to seclude the church from the world, and the churchyard from the rattle and roar of the elevated railroad, as well as from the sight of that gaunt erection, it could not have fulfilled even that limited function more perfectly. One would like to praise equally a sort of appanage to St. Paul's, it seems, not far away, at 211 Fulton Street. But one is rather relieved to find that the seeming is fallacious, and that "the parish" has no architectural responsibility for an erection made by an association of charitable lay people, organized on their own account, and merely, as it is officially stated, "more or less in connection with Trinity Church." Because the front, though making a fairly

Fig. 19. Interior of St. Augustine's.

distinct proclamation of ecclesiastical uses, is but too evidently the mere "putting up a front" of churchly pretensions on the unregenerate six-story warehouse which is the normal construction of the neighborhood. That it has been "done over" is the clearest statement the front makes, unless it be that it has been unsuccessfully done over.

And now to return to St. John's in its chronological order, from which we have been diverted by the "actuality" of the threat to abandon it and the agitation to preserve it, this actuality being, in fact, what induced the able editor to instigate this present article. Suppose a corporation were to embark, in this present year of grace, upon the same sort of real

estate speculation upon which Trinity embarked, with such brilliantly successful results, in 1803. It also would have to have some sort of civic and social center for its enterprise. It might, if well enough advised, sacrifice for a park a considerable portion of its new holdings. But to sacrifice so large a proportion of them as St. John's Park, in 1803, bore to the total acquisition of the parish, would make all but a very bold and confident "operator" hesitate. Quite true, the operator in question may have argued, and evidently successfully argued, the land cost nothing and would be worth nothing except what the "improvements" made it worth. So the sprat which was thrown away to catch the whale was of no use for any other purpose. But when it came to laying out a great deal of good money on a monumental building, that was another matter. In our day, the monumental building would be some sort of social and mundane resort, some clubhouse, some "casino." In 1803 it simply had to be a church. And, moreover, it simply had to be a Protestant Episcopal church. If the wise speculator had had no connection with Trinity parish at all, it would have had to be an Episcopal church to allure the kind of settlement that he had it in mind to attract, and that he did actually attract. The fact is a conclusive proof of the social ascendency which the Episcopal Church had attained so soon after the Revolution, which might be supposed not only to have disestablished it, as of course it did, but to have discredited it, as it so evidently did not. It is was not for nothing that "General Washington's pew" had already been distinguished in St. Paul's, as it continues to be to this day. After the park, the church. For, note that the employment of John McComb to design and build the handsomest, most spacious and most monumental church on Manhattan Island for the use of the new quarter was a preliminary step to the "booming" of the project, contemporaneous and correlative with the laying out of the park. Possibly it was John's success in getting himself publicly acknowledged, in spite of the grumblings of a few who knew better, as the architect of the City Hall (which he so clearly was not), which put him in view as the architect of the new church. City Hall and church, we know, were begun in the same year. The church is as indisputably English as the City Hall is indisputably French. Possibly, nay, probably, the astute McComb had known where to find a competent

Fig. 20. St. Agnes' Church from the Northwest (1889).
91st Street, near Columbus Avenue.
W. A. Potter, Architect.

Fig. 21. Interior of St. Agnes'.

British designer for the one, as we know that he had known to find, in the person of Mangin, a competent French designer, for the other. And the intention is evident in the design and the execution of St. John's to make it, in point of scale, material and workmanship, the most spacious, costly and monumental place of worship on Manhattan Island in the year 1803. Not the now "Old Trinity" of a generation later was a more marked advanced in these respects upon what was already to be seen in the way of ecclesiastical architecture. There was nothing mean about the lay-out. A lot 250 feet wide was taken as the site for a church 75 feet wide, and thus afforded it ample detachment. The width is exactly the same as that of St. Paul's, but the depth is 155 feet, against 115 of the older edifice, with a proportional increase in interior impressiveness (Fig. 7). If John Adams had postponed his visit thirty years, St. John's would have been the first lion his hosts would have taken him to. As to material, we have seen that what imposed themselves upon the innocent John as "stone pillars" were, in fact, but brick cores covered with stucco. But the larger pillars of St. John's, including the capitals, were of honest and costly stonework. You will observe, also, that a Corinthian capital is a much more expensive and exacting piece of work than an Ionic (Fig. 8). When Jefferson was securing the adoption of the Maison Carrée, at Nimes, for the capitol of Virginia, he had reluctantly to acquiesce in the change of the order from Corinthian to Ionic "on account of the expense." In fact, I do not recall a Corinthian order in our Colonial architecture except in interior woodwork. These capitals, on a scale highly respectable, if not colossal, were themselves a "swell" and startling feature in the architecture of Manhattan in the first decade of the nineteenth century. And the order, altogether, by material and scale and material and workmanship, is much more impressive than the earlier example. McBean, you observe, took the liberty of spacing his columns unequally, in order to give a better view of his big Palladian window between the middle two of them, while McComb adhered to the equal classic spacing, and the portico of St. John's is correspondingly more effective. The entablature in each case one grieves to find of wood. In the later case that was probably the effect of constructive timidity, rather than of economy. It was "ere yet the art was known" of inserting behind a stone slab arches turned

Fig. 23. St. Luke's Chapel (1821). Hudson Street.

Fig. 22. Trinity School. West 92d Street. C. C. Haight, Architect.

from column to column to relieve the apparent lintel, much more before the art was known of cunningly inserting a bowstring girder of metal for the same purpose. And then the whole front of St. John's is of ashlar, while the front of St. Paul's is of cheaper stucco. The sides are in each church of rubble, probably originally covered with stucco in St. Paul's; certainly so covered in St. John's, as you may see at the side, where some of the stucco still adheres. But you will notice that the rubble of St. John's is much more presentable where the stucco has flaked off, than the rubble of St. Paul's, which really must have been covered to be presentable at all. And you will also notice that, in place of the mere quoining at the angles of St. Paul's, the angles of St. John's are far more expensively turned with cut stone pilasters, crowned with full, elaborate and expensive Corinthian, capitals to match those of the portico. Our unknown genius was not the man to lose a whale for want of a sprat to throw away on him. Taking for correct John Adams' estimate of the cost of St. Paul's, forty years before the beginning of St. John's, as $66,500, we find that St. John's cost quite three times as much, "upwards of $200,000," and whoever inspects and compares the two edifices to-day can account for the difference.

All this while the "mother church," Old Trinity itself, had been overshadowed and eclipsed by her daughters. The first edifice, built in 1696, only twenty years after the definitive change of sovereignty from Holland to England, and while the social ascendency of Manhattan remained indisputably with the Dutch-speaking population, was but a mission chapel "in partibus," in spite of the efforts of the royal governors, from Fletcher down. In 1774, when it was still less than eighty years of age, John Adams found it so little of a local lion that he had nothing to say about it except that it was an "old church." Two years later it was utterly destroyed by fire, and not only not rebuilt during the British occupancy, but not until five years after the recognition of independence. Anglicanism and Toryism were still, in the popular apprehension, pretty much the same thing. It was an ungainly as well as a belated Phoenix which began to rise in 1788 upon the ruins of 1774. At the consecration, in March, 1790, Washington attended, in the pew which the vestry had just voted to be reserved for the President of the United States, but apparently without disturbing his relationship as a parishioner of St. Paul's. Prints of the Phoenix are still available, from which it appears as a mere colonial meeting house, with only the badge of Anglicanism which was furnished by a domical chancel at the east, or Broadway, end. And, when it was demolished, in 1839, to make room for the third and present church, it does not appear that there was a dog to bark at its going. If such a dog there was, he was not an architectural critic.

For without doubt the Trinity which supplanted it remains the best church in New York; one of the most creditable public buildings in the country, one of the most valuable and valued of our civic possessions. One wishes, of course, for the genuine vaulting for which the substructure seems competent and intended, and for which, evidently, the lateral abutments, the flying buttresses, might easily have been supplied. Every Gothic architect is necessarily subject to "vaulting ambition." But to "vaulting ambition that o'erlaths itself" no true Gothic enthusiast is subject. It is quite inconceivable that Richard Upjohn conceived that interior of Trinity as we see it in execution. Professor Babcock, his son-in-law and partner of later years than those of Trinity, will pardon me for adducing his evidence in behalf of an overwhelming antecedent probability. Mr. Upjohn meant the church to be vaulted in the honest brownstone of which the piers or the nave are built up to the springing of the arches and of the vaults. Being overruled in this, he did not propose to carry out the vaulting in the actual imitation of real vaulting. On the contrary, he submitted a design, and one is quite prepared to believe a very interesting design, for a ceiling of open

timberwork which should have been "the real thing." But here again, it appears, the sons of Zeruiah in the vestry were too hard for him, as they have on so many occasions been too hard for the zealous clerical and lay ministers of Trinity, who have striven to make the ancient corporation worthy of its historic function and pretensions. And so he was reduced to executing a sham of his conception of a vaulted ceiling. So we must regard the actual interior of Old Trinity as largely an imitative and "scenic" performance. But, even so, how very good it is! Have we anything else on Manhattan Island, in the way of an ecclesiastical interior, that approaches the effectiveness of this "long-drawn aisle and fretted vault," the aisle not too long drawn, the vault not overfretted? (Fig. 9). For that matter, have we anything in the way of an ecclesiastical exterior that approaches the dignity, the purity, the harmony, of the outside of Old Trinity, for which, truly, one could not wish a better neighboring than the roaring mart upon which its spire looks so serenely down (Fig. 10), or even no longer down? No overslaughing by modern skyscrapers can destroy the dignity of that seventy-year-old erection. On the contrary, as John Lafarge has said it, "it is the work of art that judges us." But one has to add that the subsequent and accessory erections of Trinity have all been made in the spirit of a really reverent appreciation of the old fabric itself. One may smile at the local piety which the corporation invoked in 1852, in the form of a public meeting presided over by the Mayor, to prevent the cutting through of Pine Street to the westward, through Trinity churchyard, and over patriot graves. But one can only acclaim the landmark that stopped the irruption of the secular Goths and vandals. It is the work of that brilliant Gothicist, too early lost, Frank Wills, who furnished a most interesting version of the type of monument, as old as the "Eleanor Crosses," of which Sir Gilbert Scott's modern variation, in Charing Cross, is familiar to all visitors to London, of which the Walter Scott monument in Edinburgh is one of the most successful examples, and of which the Albert monument, in Hyde Park, is by common consent the least successful. For the "motive" one must go back before the revived Gothic, back to the tomb of Can Grande, in that memorial architecture reared by "those who could bear daily to behold from their palace chambers the places where their fathers lay at rest, at the meeting of the dark streets of Verona." Like many others of its kind, this is criticizable, of course, as being a shrine which is not a reliquary, a protective canopy of an effigy which is wanting. But, all the same, how good it is, as a purely monumental study in architecture, how good in proportion, in composition, in scale and in detail. Really, can you confidently point to any designer of 1909 who could do so good a monumental study in this style or in any style, as in this work of Frank Wills, produced in 1852? Compare it, for example, with the best of the recent cenotaphs in our urban or suburban cemeteries. A measure of the same quietness and decorum, enforced, one may plausibly hope, by the proximity of the mother church, has inspired the subsequent ancillary erections. The enforcement is clearly enough shown in the design, by the original architect's son, of the "Church House," of which the crocketed and gargoyled tower comes in so luckily and picturesquely in the look across the churchyard from Broadway (Fig. 11). It is equally shown in the latest addition to the church itself, the single story added in 1878 by the late Mr. Withers, who was also the author of the "Astor reredos" inside, and of the decoration of the chancel. Nay, it is not fantastic to suppose that the architecture of Trinity has had its effect upon the designer of the towering buildings which overlook Trinity churchyard from north and south, and that equally in the design of the Empire Building, which is in a style superficially so different, as in the design of the Trinity Building, which is in a style technically akin to that of the church. Mr. Kimball, as a humane and sensitive person, was impressed with the desirableness of conforming, so

much as might be to the beautiful work which he found himself compelled to overslough and submerge. In fact, there is no possible way of measuring the civilizing influence of such a conspicuous example of pure architecture as, in our community, Old Trinity has for almost the scriptural term of human life been furnishing.

And the next example of Trinity's architecture is, upon the whole, worthy of its predecessor and exemplar. Trinity Chapel, of course, offered no such architectural opportunity as Trinity Church, or as St. Paul's, detached and surrounded by its ample churchyard. It belongs, like St. John's, to the class of 'inside churches," even more markedly than St. John's. The church consists, architecturally, in effect, of the front and the rear only, of which one imagines, most visitors will care more for the effect of the rear than for the correct and respectable, but quite commonplace, front (Fig. 12). But an apsidal chancel has a form which is quite safe to make its effect, exteriorly, as well as interiorly, and this apsidal chancel is so scholarly and so well studied, and its dependencies so well adjusted to the central mass, that it is a valuble feature in our street architecture (Fig. 13). One does not see how a designer could have done anything much more effective who was compelled to deny himself aisles and transepts, and to restrict himself to a single nave. The classical prototype of all the single-naved churches is, of course, the Saint Chapelle, and the rear of Trinity Chapel, at all events, is a worthy restudy of that intensely and typically Gothic design, in spite of the lack of the complete development which seems to some essential to entitle a church to the name of Gothic. The rear and the interior, which whoever has not seen by no means appreciates the church. In its less pretentious and less elaborate and less advantageous way it is not only a worthy successor to Old Trinity, but even a worthy rival to it (Fig. 14). And the front, rather dull, perhaps, in itself, has a marked adventitious advantage in the two flanking buildings which were added—the church school, from the design of Wrey Mould, in Fig. 15; the library of the rectory, from that of Mr. Haight. The bold picturesqueness of Wrey Mould's style, and the success of his application of color, have not often been better illustrated than in this sparkling little work, which serves to illustrate without "jarring" Mr. Haight's later study in safe and dignified collegiate Gothic. The church and its dependencies make up a very attractive group.

Probably most parishioners of Trinity have forgotten the exigencies which made it seem in 1868 that there was need of a mission chapel at Seventh Avenue and Thirty-ninth Street. It is unlikely that the need and the opportunity would reveal themselves now, with the actual occupation of the neighborhood. But we have reason to be thankful that a want was felt which has resulted in decorating the neighborhood with so good a specimen of architecture as St. Chrysostom's (Fig. 16). Here, in place of an inside church, with a decent, if not liberal, reservation of ground on each side, is a corner church which occupies merely the ground it stands on; in effect, a square, abutting at each of its ends on the adjoining secular buildings and so compelling a rather unusual arrangement, especially as orientation is preserved, and the chancel occupies the street front. The result is an effective exterior, in which the low mass of masonry, stopping at the springing of the large pointed windows that occupy the flanking gables, is crowned with a steep hood which serves almost as well as a lofty spire would do, its architectural function of supplying a mediating and reconciling member between the two equal gables. The interior is even more interesting (Fig. 17). The want of symmetry entailed by the necessity of walling out the aisles on one side is cleverly got over. A dignified interior accrues, with a particularly interesting solution of the chronic and crucial problem of a transeptual church with an open-timbered roof, the expressive and appropriate framing of the "crossing." One does not often come upon a solution

of it so successful. On the whole, and whatever the actual uses which the building subserves, forty years after its erection, the hunter after the picturesque in the streets of New York must be grateful that it was put into the hearts of the corporation so long ago to supply so agreeable an interruption to the equal monotony or the unequal animation of Seventh Avenue.

Thus far, whether Georgian or Gothic, the architecture of Trinity parish was strictly conventional and decent, operating within well-defined metes and bounds. But in the next mission chapel, that of St. Augustine, in Houston Street, there came in the passion for "eclecticism," characteristic of that later, or Victorian, phase of the Gothic revival, of which it may almost be said that its products were first impure, then unpeaceable. Not by any means that this is an unfavorable example of the phase. But the problem itself was rather unusually complicated, and the edifice rather reflects than simplifies the complication of the problem. Here the church, the fountain and origin of the whole scheme, is relegated to the rear of the lot is, in fact, quite invisible from the street with which it is connected only by a corridor, just as the ordinary theatre is withdrawn. The front building traversed by the corridor is here, it is true, connected in use with the church; it is, in fact, a parochial building. The thing to do, one would say, was to indicate the ecclesiastical interior by as dignified and churchly an entrance as the designer could contrive, and to subdue the front to its subordinate uses. Certainly one does not see the necessity of erecting a steeple to crown the "business block" in front of the church. The block is not only so crowned, but the framed spire has an awkward jog in outline in the course of its ascent, while the front is grouped and varied and tormented to an inexplicable degree (Fig. 18). It is only when one passes the portal and enters the corridor that he perceives the corridor itself to be an interesting piece of design, with moulded and cut bricks, which were a novel means of expression and decoration in 1877, and that the vista furnished by its own length much enhances the effect of a well-designed, well constructed and distinctly "churchly" interior, which would be impressive even if it had not such a forecourt, and in which the animation by no means destroys nor even disturbs the repose (Fig. 19). It is, in fact, in many respects a model for a church interior which is relegated, not merely to an "inside lot," but to the back of the lot.

Far more ambitious and extensive, and of far more architectural importance, is the next and the latest of the additions to Trinity's architecture. Really, St. Agnes' bears much the same relation to the exploitation of the upper west side that St. John's bore, in its time, to the exploitation of the lower west side, with this difference—that the development of the lower west side a hundred years before was the work of the same promoter who conceived and instigated the church, while the later church was simply an incident of a development with which the parish had nothing whatever to do. The Romanesque had by this time succeeded the Gothic fashion, and the late and lamented Mr. William Appleton Potter had addicted himself to the Richardsonian phase of Romanesque with enthusiasm. St. Agnes's is only one, though, no doubt, the most important, as well as most costly and pretentious of the churches with which he adorned Manhattan under this influence, though he afterwards outgrew it and did his remaining work in grammatical Gothic. In composition, St. Agnes has evidently enough a bad fault. There is no dominating feature. The two features of which either might dominate in the absence of the other are not co-operative, but competitive. One is the big and rather bald "cimborio" which covers the crossing, and for which Trinity Church, Boston, immediately, and Salamanca Cathedral ultimately, may be held responsible; the other the tall unbuttressed campanile. This latter had its precedent in Richardson's work, in the tower of the Albany City Hall, But Richardson was better inspired than to try to

combine the two. If the central tower of St. Agnes' had been the only feature, and the money spent upon the belfry had been added to it, or if the central tower had been omitted and the belfry correspondingly enlarged and enriched, the effect would doubtless have been better than it is. But these faults do not, and worse faults would not, prevent St. Agnes' from attaining a distinguished architectural success (Fig. 20). The unusual magnitude and protrusion of the flanking buttresses are sometimes alleged as faults. But, in fact, they are no bigger than seems necessary to abut the great arches of the nave, while they do, without question, add to the expression of massiveness and repose in the flank of the church. While the campanile is evidently, and, as it were, avowedly, taken from that of Albany, and while the combination of material throughout is that popularized by Richardson of rough gray granite or rubble, with wrought work of brown sandstone, the tower of St. Agnes is in many points an improvement upon the prototype, most notably, perhaps, in the combination of the two materials which are here "implicated" throughout; whereas in Albany a belfry stage, all brownstone, surmounts a shaft all granite. The apse, again, recalls that of Richardson's first great success in Boston, while it shows a sensitive and artistic restudy of that design. The interior, on the other hand, owes nothing to the prototype of the exterior. It is a very straightforward, expressive and impressive example of the Romanesque which, even in its architectural detail, and still more in its interesting furniture and fittings, harks back from the western Romanesque to the eastern, to the Byzantine (Fig. 21). It is not only an excellent example of a fashion which has passed. It is one of the examples which makes it seem rather a pity that it was a fashion only, and that it has passed. The parochial buildings flanking the apse are of the same solid and seemly character as the church itself. And one remarks with interest that there is no lack of comity and neighborliness between this rock-faced proto-Gothic and the smooth brownstone which Mr. Haight has adjoined to it, in that phase of the latest degeneration of Gothic we call "Jacobean," for the uses of Trinity School (Fig. 22).

As for St. Luke's, it would be quite unfair to hold Trinity to any responsibility for its architecture (Fig. 23). For, although the building has the respectable antiquity of nearly ninety years, it was merely taken over by Trinity in 1892, when its own congregation migrated northward to erect its new church in Convent Avenue. Who, if anybody, was the architect, does not appear, and evidently does not matter. But the view of St. Luke's is worth giving, if it were only to explain and largely to justify those hereditary parishioners of St. John's Chapel, who have shown such marked reluctance to be tranquilly transferred from that building to this without their own advice or consent.

For the rest, these illustrations make it plain what a public benefactor, in the way of architecture, Trinity has been for the past century and a half. It has followed the fashions, but not too precipitately. And, in whatever fashion of ecclesiastical architecture it has worked, it has given us excellent examples. Whether it be Colonial, revived Gothic, "Victorian" Gothic, or Provincial Romanesque that was in vogue for church-building, Trinity has furnished us not only with typical, but with admirable examples of the prevailing style. One who has made such a study as this present has found much more to admire in the management of the spiritualities of Trinity than in that of the temporalities. It needs such a research to enable one to appreciate the courage and the devotion, the fidelity and the insight with which the vicars of Trinity have wrought towards fulfilling their "mission," in all cases so altered from the original purpose of their respective establishments, what incomputable good they have done in and are doing in maintaining true centers of civilization in the polyglottic new populations that surrounds each of the outlying chapels. "But that is another story."

Montgomery Schuyler.

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Boston. McKim, Mead & White, Architects.

Architecture in the United States

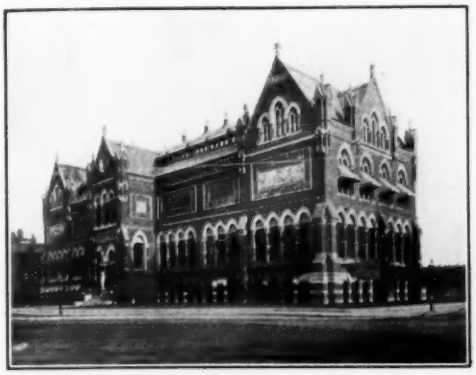
I.

The Birth of Taste

Architecture, although the least plastic and animate of the arts, images at all times a nation's character, changing as that changes. It is the mirror of the national consciousness. It cannot lie. If it seems to do so it is only the more truly to betray the essential falsity of the social condition under which it had its origin. The parallel between our architecture and our national character holds good all along the line; it everywhere reflects the social tone that dictated it. The difference between Independence Hall, let us say, and a modern skyscraper, is the measure of the difference between the men and manners of Colonial days, and the men and manners of to-day. To trace, therefore, the development of architecture in the United States, from Colonial times until now, is to learn something of the ramifications of the public temper and the public taste during that period, while a knowledge of that taste and that temper, gleaned from other sources, will help to clear up many obscurities which such a survey presents.

Our architecture has not undergone that slow and orderly development which has usually characterized the progress of the art in other countries and in times past. Before our War for Independence, and for a considerable time thereafter, the Georgian style, that is, the manner of building prevalent in England during the reign of the four Georges, modified into what we have come to call the Colonial style, was universally employed for buildings of every size and class. The architecture of the Georgian period represents the Renaissance of Jones and Wren in its last gasp; but with all its faults, something of the grand manner of an age of taste survives in it, and it is characterized by a quiet dignity arising from a certain simplicity of motive and a justness of proportion of which the builders of that day possessed the secret, or instinct, and which we appear to have lost. Certain it is that in the Colonial style we came as near as we have ever approached to achieving an American style of architecture, and its representative examples, for appropriateness and beauty have never been surpassed. I hasten to qualify this statement by reminding the reader that the problems which confront the modern architect are as difficult, compared with those presented to the Colonial builders, as the problem, let us say, of living the simple life at the Waldorf-Astoria, is difficult compared with living it on a New Hampshire farm.

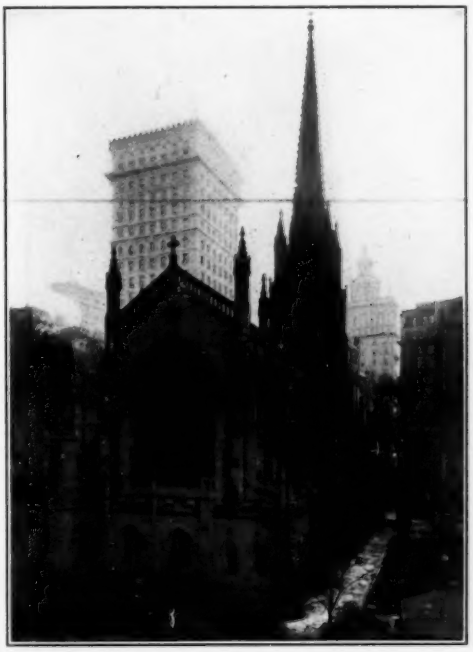
Georgian architecture gave place to that of the so-called Classic Revival.



Fine Arts Museum.
Boston.

This curious phase of our development has found but small place in our literature, but it has left many a souvenir in the names of villages and cities. (There are 27 Troys, 15 Romes and 12 Carthages), and in many old white houses with tumble-down Greek porticoes, for this was the period of pseudo-temples, their "orders" laboriously worked out, by modules and minutes, and translated literally, without the change of a phrase, from stone into wood and brick and plaster. It was all false, affected, pretentious, yet occasionally, in the right environment was achieved an effect of sober dignity —almost of grandeur—to which the unmitigated and un-redeemed mid-Victorian ugliness which succeeded it, could never, under the most flattering conditions, lay the smallest claim. The late H. C. Bunner has happily suggested the superiority of the elder vogue to the later by this apostrophe of an old white pillared house, addressed to a new Queen Anne shingled cottage.

"I have had my day. I was built when people thought this sort of thing was the right thing; when we had our own little pseudo-classic Renaissance in America. I lie between the towns of Aristotle and Sabine farms. I am a gentleman's residence, and my name is Montevista. I was built by a prominent citizen. You need not laugh through your lattices, you smug new Queen Anne cottage, down there in your valley! What will become of you when the falsehood is found out of your imitation bricks, and your tiled roof of shingles, and your stained glass that is only a sheet of transparent paper pasted on a pane? You are a young sham! I am an old sham! Have some respect for age."

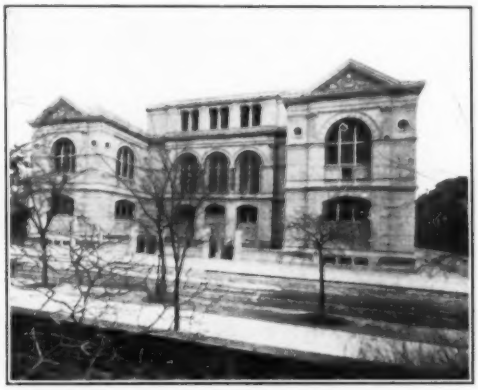


Trinity Church.
New York City.
Richard Upjohn, Architect.

Independence Hall.
Philadelphia.

Even the Carpenter's classic period and the dim Victorian limbo were not without their glimmerings of light. These took the form of a few—a very few—really beautiful Gothic churches—of which Trinity in New York was among the finest—built by Upjohn, and his disciples; men inspired by the vital, but abortive Gothic revival in England. The influence they exercised upon our secular architecture was little enough, and rather pernicious than otherwise, since it produced the Gothic Farm House type, exploited in the pages of building manuals and agricultural papers—a thing of broken roofs, contorted chimneys, and long, narrow windows. Of a different order, but scarcely more happy in results were the buildings inspired by the teachings of Ruskin, a man whom Mr. Cram characterizes as "of stupefying ability * * * quite the most unreliable critic and exponent of architecture that ever lived, but gifted with a facility in the use of perfectly convincing language, such as is granted to few men in any given thousand years." The existing Boston Art Museum is a typical example of the misdirected efforts of this particular group who "turned to detail and decoration the use of colored bricks and terra cotta, stone inlay, naturalistic carving, metal work, as the essentials in constructive art, abandoning the quest for effective composition, thoughtful proportion and established precedent."

De Vinne Building.
New York City.
Babb, Cook & Willard, Architects.



Lenox Library.
New York City.
R. M. Hunt, Architect.

1880. I do not know why this apparently random combination of digits should mark an epoch in the history of manners and taste, both in England and America, but such is the case. Max Beerbohm wrote an essay on "1880", treating the period, in his elfishly humorous vein, as almost unimaginably remote—and remote indeed, it seems, so swiftly have the wheels of change revolved since then. Time, in the last analysis, is but succession, and

Marshall Field Warehouse.
Chicago.
H. H. Richardson, Architect.

Ponce de Leon Hotel.
St. Augustine, Fla.
Carrère & Hastings, Architects.

when changes succeed one another rapidly, time seems to extend; when slowly, to contract. The Italian Renaissance from its earliest dawn till twilight was scarcely two generations in length. But to return from this digression: It was in, or about 1880 that the aesthetic darkness of the "Scientific Century," by being made a subject for laughter became a subject for thought. The renascence of taste in England, inaugurated by William Morris, and the Pre-Raphaelites, and perpetuated by the "Aesthetes," was a fertile, and perhaps a fit subject for the satire of Mr. Gilbert and "Mr. Punch," since all movements at all revolutionary are apt to have their beginnings in exaggeration and excess; but the humors of "Patience" and of "Passionate Brompton," could not blind intelligent people to the enormous significance of the fact that men were again being born into the world with a craving for beauty—"mere" beauty, if you will. They found this beauty in Greek sculpture, in Gothic architecture, and in the paintings of the Italian Primitives; but in their own environments they found it nowhere except in some scattered and random trifles brought in the holds of farfaring vessels from China and Japan. The storks, fans, and cat-tails, with which the Aesthetes adorned their dados, make us shudder now; but they testify to the sincerity of their admiration for the only vital art manifestation of any magnitude in the world at that time, and are eloquent witnesses of the fact that the appreciation of Oriental art was contemporaneous with the first concerted

Tiffany Residence.
New York City.
McKim, Mead & White, Architects.

New York Life Insurance Company's Building.
Minneapolis, Minn.
Babb, Cook & Willard, Architects.

Trinity Church.
Boston. H. H. Richardson, Architect.

and serious attempt in modern Anglo-Saxon civilization towards the realization of beauty in the every-day life.

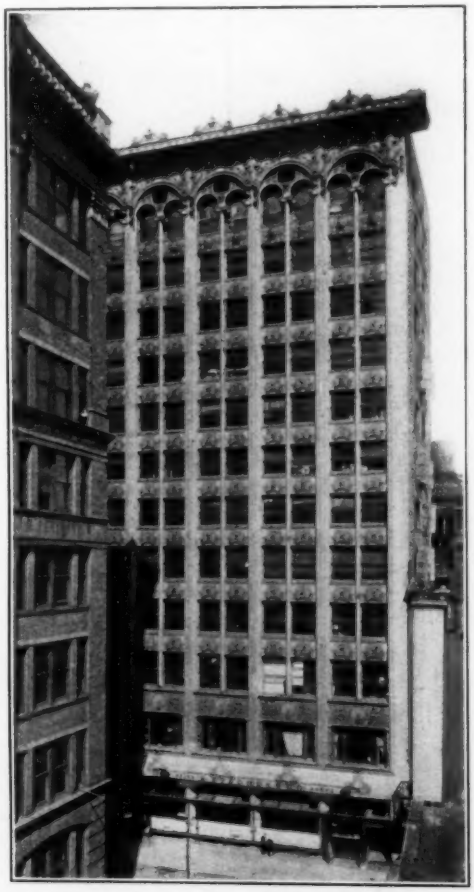
Even the most refined and sensitive spirits of the immediately preceding generation, though generally right on questions of morals, were generally wrong on questions of taste. The things with which the Hawthornes adorned their apartments and the presents given and received by Browning and his circle, there is no epithet fitly to describe. The letters written by New England's Brahmin caste abound in references to painters and sculptors of that day who are compared to the old masters to the latter's disadvantage. Charles Sumner writes to Story: "George Russell tells me that your Saul is the finest statue he ever saw;" and Story says of one of Page's portraits, "No such work has been achieved in our time." In speaking of the aesthetic sensibility of the sixties, Henry James shrewdly observes, "The sense to which for the most part, the work of art or of imagination, the picture, the statue, the novel, the play, appealed, was not in any strictness the aesthetic sense in general or the plastic in particular, but the sense of the romantic, the anecdotic, the supposedly historic—the explicitly pathetic."

St. Nicholas Hotel.
St. Louis, Mo.
Louis H. Sullivan, Architect.

The Villard Houses.
New York City.
McKim, Mead & White, Architects.

In 1880 this point of view suffered a sea-change. Oscar Wilde, the particular prophet who carried the new gospel of aestheticism to our shores, wrong as he was in matters of morals, was right in matters of taste, and he found, here, a considerable number of men and women who were right, we are bound to believe, in both. Architecture, which is the mirror of man's mind in space, was not slow to reflect this newborn sensitiveness to beauty, but in localities and on a scale commensurate

with the restricted character of the movement, which was limited to the towns and cities of the extreme east. Among the ugly and arid crags and crannies of the Boston, New York and Philadelphia streets, there began to appear some rare and delicate flowers of architectural art, the work for the most



The Condit Building.
New York City.
Louis H. Sullivan, Lyndon P. Smith, Architects.

part, of young Americans whose aesthetic sense had been nourished at the bountiful breast of Italy or France.

There is something touching in the refined and faded beauty of certain of these early essays in an American style, elbowed as they are on every hand by the big, florid, bedizened steel-frame skyscrapers of to-day. They seem to say to the passer-by "You'd love us if you'd only look at us," and so we would, New York can show nothing better of their several sorts, than Mr. Babb's De Vinne Press Building on Lafayette place, Mr. Ware's Manhattan Storehouse on Forty-second street, and Mr. White's pedestal and exedra for St. Gaudens' Farragut in Madison Square.

Not in these directions of restrained and cultivated originality, however, were we destined to develop just then, for Richardson, a flaming comet, was already blazing in the architectural firmament, attracting and scorching up all lesser luminaries, save three or four. Richardson compelled even the Philistines to sit up and take notice; to him belongs the credit of popularizing architecture in the United States. He was a great man, and the buildings he left are worthy of his genius; but his influence was as pernicious as it was pervasive and he delayed the normal evolution of architecture for many years. The style which he made his own, a modified and more massive Romanesque, neither lent itself readily to American needs and conditions, nor was it capable of expressing these with any degree of appropriateness and truth; it expressed only the powerful and romantic individuality of its creator, and in the hands of lesser men, fated, like all copyists, to seize on the idiosyncracy and miss the essential—it degenerated into a thing more crude, false, feeble, and pretentious than anything that had gone before. A short time after Richardson's death, when it was found that only Thor could wield Thor's hammer, most of the architects in the East, even Richardson's immediate pupils and disciples, turned elsewhere for their inspiration.

Messrs. McKim, Mead and White, who had never for one moment submitted to the Richardson obsession, continued to produce charming, scholarly, refined work, based, for the most part, on early Italian Renascence models. The Villard houses, in New York, reminiscent of certain places in

Farragut Monument.
New York City. Stanford White, Architect.
Augustus Saint Gaudens, Sculptor.

Florence, and the Boston Public Library, which, though composed of the same elements as the Library of St. Geneviève, in Paris, harks back to Alberti's Malatestian temple at Rimini, are two characteristic examples. The firm soon gained a substantial following, and the work produced was vastly better and more appropriate than the earlier excursions into Richardsonian Romanesque, though perhaps a little thin and anæmic to eyes grown accustomed to the bold and virile manner affected by the men educated in the methods of the Ecole des Beaux Arts. Of this manner Mr. Richard M. Hunt's old Lenox Library is perhaps the earliest example, and Mr. Whitney Warren's so different New York Yacht Club, is among the latest.

Meanwhile, other and different influences were at work elsewhere throughout the country. In Philadelphia and its environs the delicate and individual art of Wilson Eyre, and the more imitative, but admirable work of Frank Miles Day and Cope and Stewardson was mitigating, in spots, the ugliness of the earlier time. At St. Augustine, in Florida, Messrs. Carrère and Hastings inaugurated their brilliant career with the wonderful Ponce de Leon hotel, a building so original, so beautiful, so rational, so suited in every way to its environment and purpose, that it may truly be called a masterpiece. In Chicago, Richardson had built, in his happiest vein, a great warehouse. Simple, severe, utilitarian, but most impressive, the work of a poet in stone, it seemed to symbolize the city's very soul, and it furnished the inspiration for many important buildings erected by Messrs. Burnham and Root, and Messrs. Adler and Sullivan. Of these the Auditorium Building is perhaps the best example.

After Richardson's death there was need of a new prophet in our architectural Israel, and to the eyes of a little circle of devotees in Chicago, he presently appeared in the person of Mr. Sullivan, who early developed a style of his own, which straightway became that of a number of others, (with a difference, of course)—young and eager spirits, not fettered by too much knowledge—not fettered, indeed, by enough! Outside this little circle Mr. Sullivan was either unknown, ignored or discredited by those persons on whose opinions reputations in matters of art are supposed to rest. Engaged for the most part upon intensely utilitarian problems in an intensely utilitarian city, he had no opportunity to captivate the popular imagination as

New York Yacht Club.
New York City.
Whitney Warren, Architect.

Richardson captivated it in his Trinity Church, Boston. Yet by the power of his personality and the vitality of his genius, he has exercised as great an influence upon the national architecture as his illustrious predecessor—greater in fact, because more abiding, for Mr. Sullivan concerned himself with principles, not preferences.

Mr. Sullivan's theories and his accomplishments will be considered at greater length in a subsequent essay. It is sufficient to say, in this connection, that he has solved the aesthetic problem of the sky-scraper more successfully than any architect before or since. This problem had always been a thorn in the side of the academically trained designer, who usually endeavored to achieve diversity in the exterior where none existed on the plan by a series of superimposed motives, separated by cornices or string courses which had the effect of diminishing the apparent height. Mr. Sullivan was among the first to perceive the inherent irrationality of such a treatment. He saw, moreover, a great opportunity in the problem of the modern office building. Since loftiness was of necessity its chief characteristic, instead of suppressing he emphasized the vertical dimension.

The Guaranty (now the Prudential) Building in Buffalo, and the Condit Building in New York, are two embodiments of his idea. Although these have not been paid the sincere tribute of exact imitation, the force of Mr. Sullivan's example, more than that of any other man, put an end to the meaningless piling of feature upon feature. To emphasize, and not minimize the vertical dimension of a high building, has come to be the accepted practice.

The pre-occupation of the Chicago architects with the practical and economic aspects of the tall office building to the general exclusion of the aesthetic, had the odd effect of rendering their early essays in that field superior, as a general thing, to those of about the same period in New York. The latter show ornament for the most part misapplied, and an aesthetic preoccupation misdirected. Mr. Root's old Monadnock building, for example, is better architecture than Messrs. Carrère and Hastings' Mail and Express Building, though they stand at opposite extremes in the matter of cost and embellishment. The last-mentioned architects showed later, in their altogether admirable Blair Building, that they had learned from Mr. Sullivan or elsewhere their lesson.

Such architectural graces as other Western cities could lay claim to, up to the time that I have brought this chronicle, that is, just before the Columbian Fair, they owed, for the most part, to alien talent. San Francisco in particular, before the advent of men trained in the more scholarly methods of the East, was a veritable chamber of architectural horrors. It is said that in the early days it was the custom for the builder, at a certain stage in the construction of a house, to appear upon the scene with a wagon load of miscellaneous jig-saw ornaments, which he would then hold up, one by one, in the presence of its owner, until the latter had selected those that pleased him best. I have heard the theory advanced that the nickel and mahogany Pullman cars of the Southern Pacific first established the California criterion of taste, in the matter of house decoration—being the particular order of magnificence with which her sons were first and most familiar.

Mr. A. Page Brown's work in San Francisco, Messrs. McKim, Mead and White's New York Life building in Kansas City, Messrs. Babb, Cook and Willard's splendid office buildings for the same Company, in St. Paul and Minneapolis, and Mr. Sullivan's St. Nicholas hotel and Wainwright Building in St. Louis, to mention only a few typical examples, established a standard of excellence in these cities which had an effect upon the profession throughout the entire West, and when the time came for determining into what hands the exceptional architectural opportunities afforded by the World's Columbian Exposition should be entrusted, the most eminent Eastern architects were freely given the lion's share.

Claude Bragdon.

APARTMENT HOUSE IN MANHATTAN SQUARE.
West 77th Street, New York. Harde & Short, Architects.

An Apartment House Aberration

Manhattan Square, New York City

How many readers, one wonders, of the Architectural Record, remember when there used to stand, in Broadway, just above Grand Street on the Western side and adjoining or almost adjoining the then retail store of Lord & Taylor, the simulacrum of a cathedral window, dedicated to the uses of the retail dry goods trade. It was already, in 1875, or a little later, a little antiquated. Because it was made of cast iron, painted white to imitate marble. It had already before the middle of the eighth decade of the nineteenth century come to be understood that an exposed iron skeleton was not to be trusted against fire. That expensive lesson had been inculcated by the great fires of Chicago and of Boston, particularly that of Boston, where the exposed skeletons of ironwork withered and collapsed in the fiery furnace to which they were subjected. To be sure, it was later than that that the late R. M. Hunt essayed to treat iron fronts idiomatically in two store fronts, on the East side of Broadway somewhere about Broome Street, one in a very free classic, the other in Moorish. But it was some years before that that the late F. C. Withers had essayed the same task in a store front in Canal street, near Broadway, which was pretty evidently of a Gothic inspiration, though the architect had studiously omitted any detail derived from the Gothic treatment of masonry. These fronts strove to make up for their attenuation and for the lack of functional modelling by pigmentation. They were interesting experiments towards the rationalization of a metallic construction. Broadway was full of iron fronts in those days, mostly relics of the sixties, possibly even of the fifties. But there was no pretence of rationalization or of rationality about the others. They were merely and frankly imitations in metal of fronts in stone, mostly in the classic manner, the "mercantile Renaissance" of the Broadway of those days. This particular front we are recalling asserted itself mainly by being a reproduction of Gothic forms instead of classic. It was quite as far as its classic neighbors from any pretence of rationality or of adaptation. It was in fact, a very richly traceried window five stories high, or four, since the basement was more solidly treated, of the normal "cornice line" of that old Broadway, by, say, twenty-five feet of frontage, which was also not abnormal. In point of fact, it was in dimensions the normal mercantile "unit", only in its treatment an aberration from the mercantile architecture of the street as exhibited in the cast iron fronts, and an aberration not necessarily for the worse. Practically rather for the better, since a cathedral window between narrow piers admits more light than any other imitation of historical forms in masonry. And this was a cathedral window which may have been literally copied from some accredited example, possibly magnified, possibly on the scale of the original. In either case rather an impressive example of "scale" in that old Broadway. It is true that the rich tracery of the arch-head may have been irksome to those condemned to dwell behind it. But, again, these were only the janitor's family who were well recognized to have no rights that architecture was bound to respect, and who may have been quite as comfortable "behind the bars" of the tracery, as the families of the janitors of the cast iron Renaissance palaces cooped up behind the monumental cornices, and peeping out through inconspicuous slits conceded grudgingly to their merely human requirements.

Long since have the Gothic windows in cast iron, as well as the Renaissance palaces in cast iron disappeared, submerged under that rising tide of Yid-

dish architecture in skeleton construction which now borders the Middle Broadway which was then the boast and favorite promenade of Manhattan. But it is very vividly recalled by the enormous amplification of it even now completing on the South side of Manhattan Square, just opposite the interminable fronts of the Museum of Natural History, and so in full evidence. One may have been preaching for years the particular appropriateness of Gothic to the "skeleton construction." In fact developed Gothic was the nearest approach to a skeleton construction of which the nature and limitations of masonry admitted. The most advanced and typical of the French cathedrals were those which most nearly eliminated the wall of masonry, leaving in its place a wall of glass, punctuated at intervals and divided into "bays", by buttresses, as narrow and deep as possible. Though the shape of these, the narrowness and depth, was dictated by mechanical considerations, arising out of the mechanical function of the buttresses, it had the effect of reducing by so much the area of the wall. In extreme examples, like that of the Sainte Chapelle in Paris, it went to the extent of abolishing the wall, as wall, altogther, leaving in place of it a mere "sash frame." Now the demand of the projectors and inmates of the modern skyscrapers, whether commercial or residential, office-building or apartment house, is equally for a "sash-frame." "The prayer of Ajax was for light." It is true that "light" was hardly the prayer of the projector of the mediaeval cathedral, since he took pains to shut off and "contemper" the flood of light he obtained by filling the open spaces with a gallery of transparent or translucent pictures. What he was aiming at was what has been so admirably expressed by Milton,—

> Storied windows richly dight
> Casting a dim, religious light —

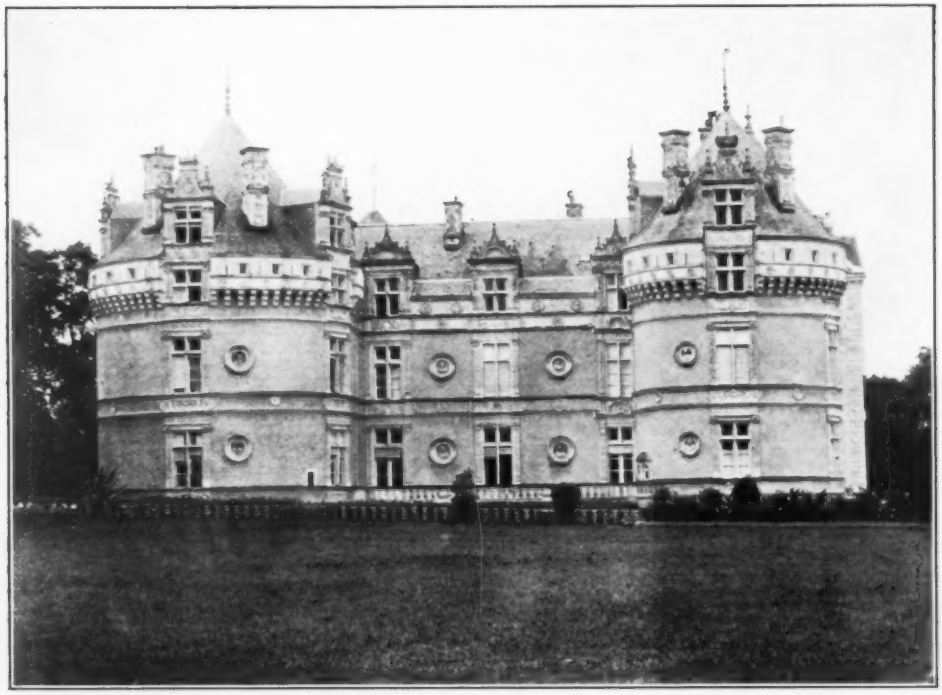
and the modern tenant does not want his light either dim or, even less, religious. But, leaving out the painted glass, the mediaeval "skyscraper" was the most artistic "sash-frame" ever evolved out of masonry, and to that extent seems to offer the most practicable precedent for the newer "skeleton construction." It is true that the upright and the horizontal members of the old skeleton construction were of actual stonework, of the newer only steel bars, enclosed and protected against weather or fire by wrappages of masonry or of baked clay reduced to the irreducible minimum of area. But clearly the principle is quite the same. The cathedral window between its bounding buttresses is the most accurate historical prototype of the modern skyscraper.

When, however, one who has been preaching thus find his precepts suddenly reduced to practice in such an erection as this apartment house in West Seventy-seventh street, the result makes him, to recur to Milton, "stare and gasp." Milton did not say anything about a fourteen-storied window, richly dight or otherwise. Milton could not have imagined a human person doing business, or a human family inhabiting, say, transom 13, mullion X, of one of his imaginary windows. But, after all, why not? One's astonishment at the unfamilarity of this strange apparition is nothing whatever against it. We have called the front a cathedral window. But its aim is really yet more ambitious. The motive is a complete cathedral front, with the whole nave occupied by one huge window, and each of the towers, from top to bottom, occupied by another. One notes that the analogy is carried out even in the asymmetry of the flanking towers. The designer simply must have been thinking of Amiens when he put that curt, truncated roof on the left hand tower, even though he were apparently still seeking for a properly counterparting motive for the other which should not counterpart too closely. The pinnacles of the actual tower appropriately enough flank it, and set it off. It is not their fault, nor yet that of their designer, if they have no very visible means of support, if he simply could not afford the space to detach suitably the flanks from the

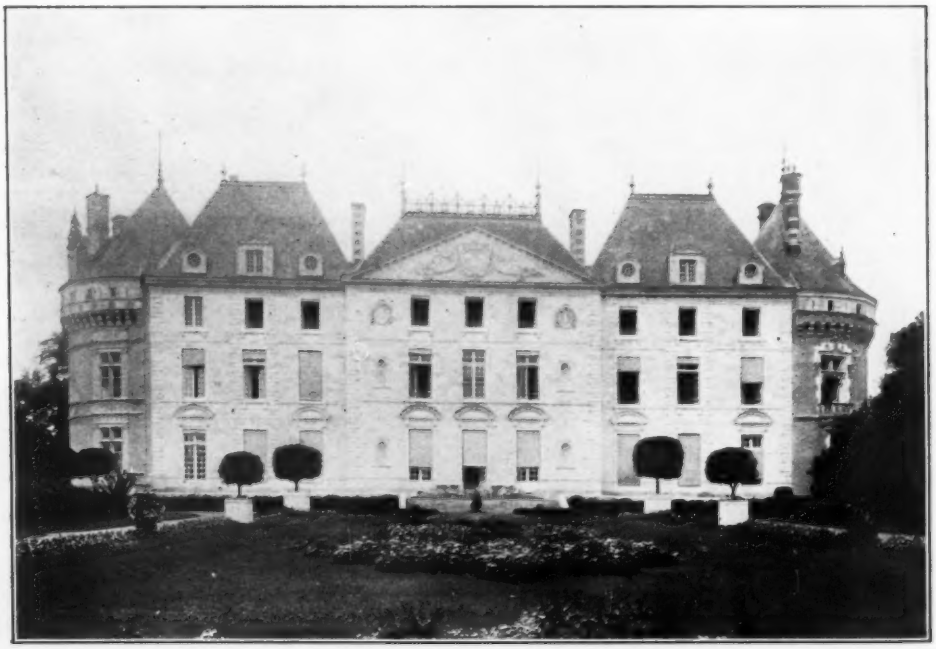
centre, the aisles from the nave, still less the space to give the towers that air of comparative massiveness and solidity which should properly distinguish them as flanking and framing members. One has known the like shortcomings in the fronts of skyscrapers in which there was nothing at all of unconventional or aberrant. It is a pity that with so generous a frontage, a frontage of not far from 100 feet, the designer did not see his way to do more in this direction. But you perceive he has done what he thought he could afford to do by emphasizing the intermediate and the terminal piers with color. And the skeleton gable that crowns the "nave" you must admit to be a picturesque and even a "jolly" feature.

Really, one can have nothing but commendation for the manner in which the architect has stuck to his text, and refrained from creating a factitious architecturesqueness at the expense of his employer. If he had not refrained, there would be nothing exemplary or suggestive about his work. There is no progress in the design of skyscrapers to be hoped for from the work of designers who seize the opportunities that skyscrapers offer to rear monuments for themselves out of these examples of a bare utility, instead of extracting from them every last dollar they can be made to yield in revenue to the designer's employer, the owner. True, one may imagine, from a view of this front, and without knowledge of the plans beyond what the view gives him, that this designer has shown a needless degree of asceticism, and that he would not have diminished the revenue paying capacity of his work by planning to give a little more or even considerably more expanse of wall where such expanse is so urgently needed. Even a few feet more of breadth of plain wall would have made an immense and beneficient difference in the effort of the front by emphasizing its main divisions. But the fault, if it be a fault, is in the right direction. In a building of which the sole use and function is to yield the greatest return on the investment, even the judicious hunter after the picturesque would rather see evidence that the architect had denied himself than that he had denied the owner.

This, of course, as to the general lay-out and disposition. No reasonable owner would or does begrudge the time and thought his architect gives to the devising or adaptation of the best and most effective detail, nor object to the additional cost of this. External attractiveness is undoubtedly an asset in a fashionable apartment house, as the sacrifice of the essential maximum of "accommodation" is a liability. And this detail is in fact, very good, well chosen, well adjusted, well "scaled". Compare this freakish front, for example, with its next door neighbor, in which there is surely nothing of aberrant. How much better composed it is and how much better detailed! How can the humane and sensitive passer fail to be grateful to the designer who has given him so much, not only that he must look at, but that he must find so well worth looking at.



TOWERS AND FAÇADE OF THE CHÂTEAU OF LE LUDE, FACING THE PARK.
(Built by Guy de Daillon.)



EASTERN FAÇADE—CHÂTEAU OF LE LUDE.

Notes on Some Famous Châteaux of the Sarthe

Almost imperceptibly our summer in Touraine had slipped away. September had come, and with it autumn's messengers. In the early morning, before the sun had had time to warm the air, the cobwebbed furze-bushes at the sides of the lanes of Touraine were covered with myriads of tiny dewdrops, whose sparkle strangely mimicked the hoar-frost of winter. The long rows of poplars, which were rapidly changing their green foliage for one that was yellow and scanty, faded into a misty distance. On low-lying meadows near the Loire and the Cher the ground was purple with thousands upon thousands of colchicum blossoms. As to the grapes, these were rapidly reddening on the vines, and in a few weeks' time would be gathered in amidst laughter and song.

On the recommendation of Balzac, who writes with his usual enthusiasm on the subject of the vintage and autumn of Touraine, we were much tempted to linger on in the ancient province. But the call of the city was unfortunately imperative, and our departure thence was now a question merely of days. Besides, the main purpose for which we had come to this part of France had been accomplished, and I can assure you that we prided ourselves not a little on the fact that there was not a château or a ruined castle of importance which we had not visited.

"I see that you have seen everything," said someone to whom I had enumerated the places at which we had called. "That is, everything in Touraine. But what about the châteaux of the Sarthe? Geographically, they are out of the district you proposed to explore. But, now that you are here and within such a short distance of them, you must not think of neglecting the principal one amongst them—Le Lude. Palustre, the authority on the French Renaissance, says that it would be difficult to find a more elegant example of the architecture of the Renaissance than that beautiful castle."

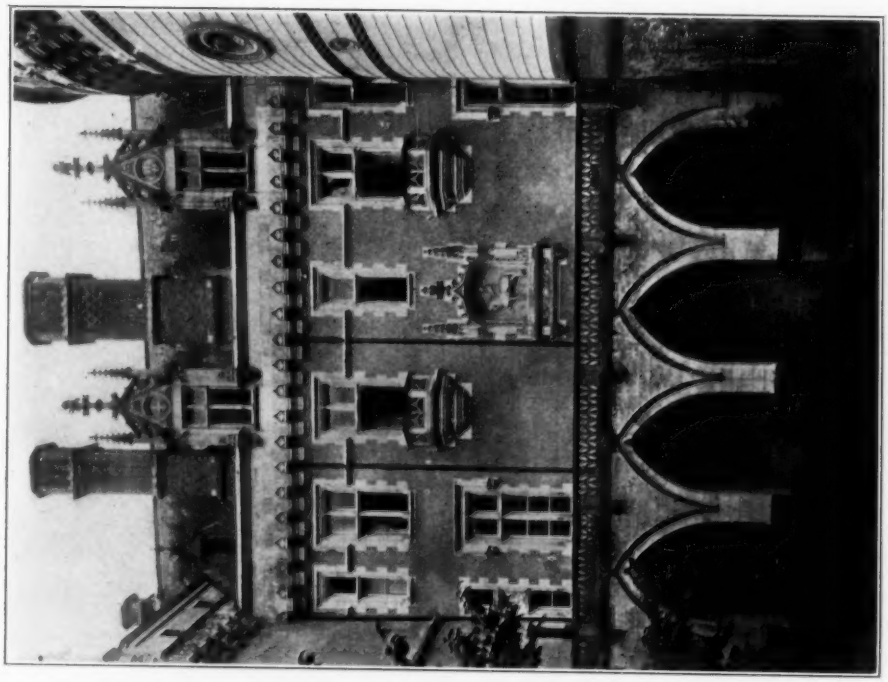
As this suggested excursion would add, we were told, but a couple of days to the length of our sojourn, we decided to undertake it. Tours, therefore, saw us once more. We made a quick run in our car from that town to Château-la-Vallière, which is noted for its picturesque lake and forest, and thence to Le Lude, an ancient and prosperous little town on the Loir. The scenery we encountered on the way consisted largely of woodland. In fact, the whole of the Sarthe has the aspect of an extensive forest, the department gaining this appearance owing to the numerous hedges which separate the fields and the clumps of tall trees which are dotted here and there.

Our adviser was certainly right in recommending us not to miss the Château of Le Lude. Its stateliness, the beauty of its ornamentation on pilasters and dormer windows, and the charm of its gardens place it on an equal footing with some of the most important of the châteaux of the Loire. The gardens, which are even finer than those at Chenonceaux, are especially noteworthy. The *jardin à l'anglaise* is situated on a raised terrace overlooking the Loire and facing the southern façade of the castle, and it is embellished along its entire length of two hundred yards with superb marble vases—Italian work of the sixteenth century. At the end of the terrace is also a fine marble group, representing Hercules and Antæus, by Mongendre, a Mans sculptor who lived about the end of the reign of Louis XIV. Beneath, and bordering the Loir, is the French garden, set out in that formal manner which accords so well with the lines of the eastern or eighteenth-century façade of the château facing the river.

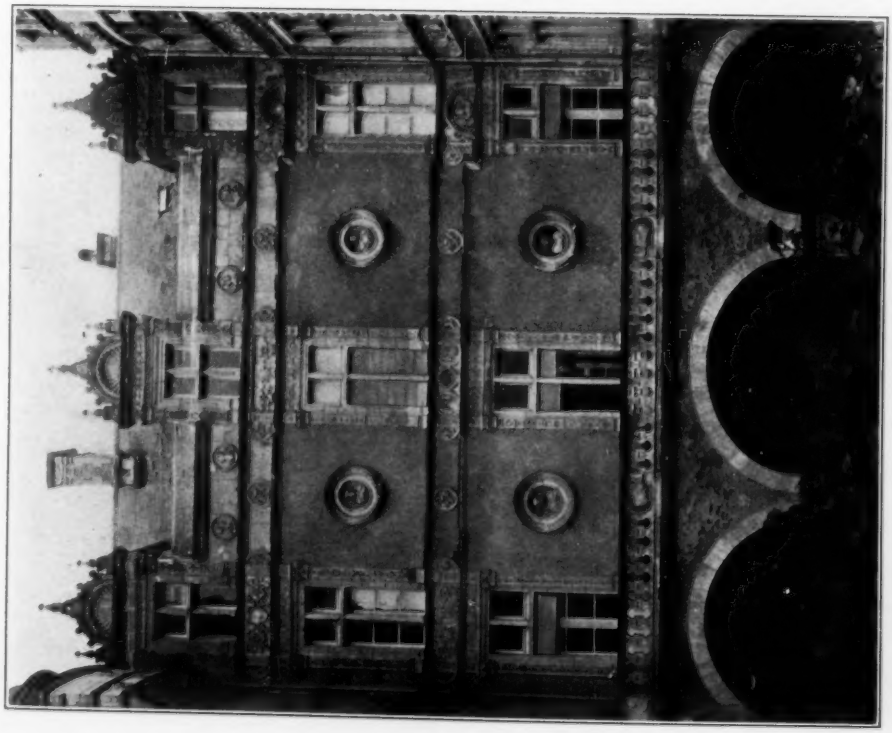
The Château of Le Lude, which forms a large quadrilateral, surrounding a rather diminutive courtyard, was built by members of the Daillon family. Jacques de Daillon began to build it on

CHÂTEAU OF LE LUDE—ENTRANCE FROM THE TOWN.

CHÂTEAU OF LE LUDE—THE FRENCH GARDEN.



Northern Façade.



Façade Facing the Park.

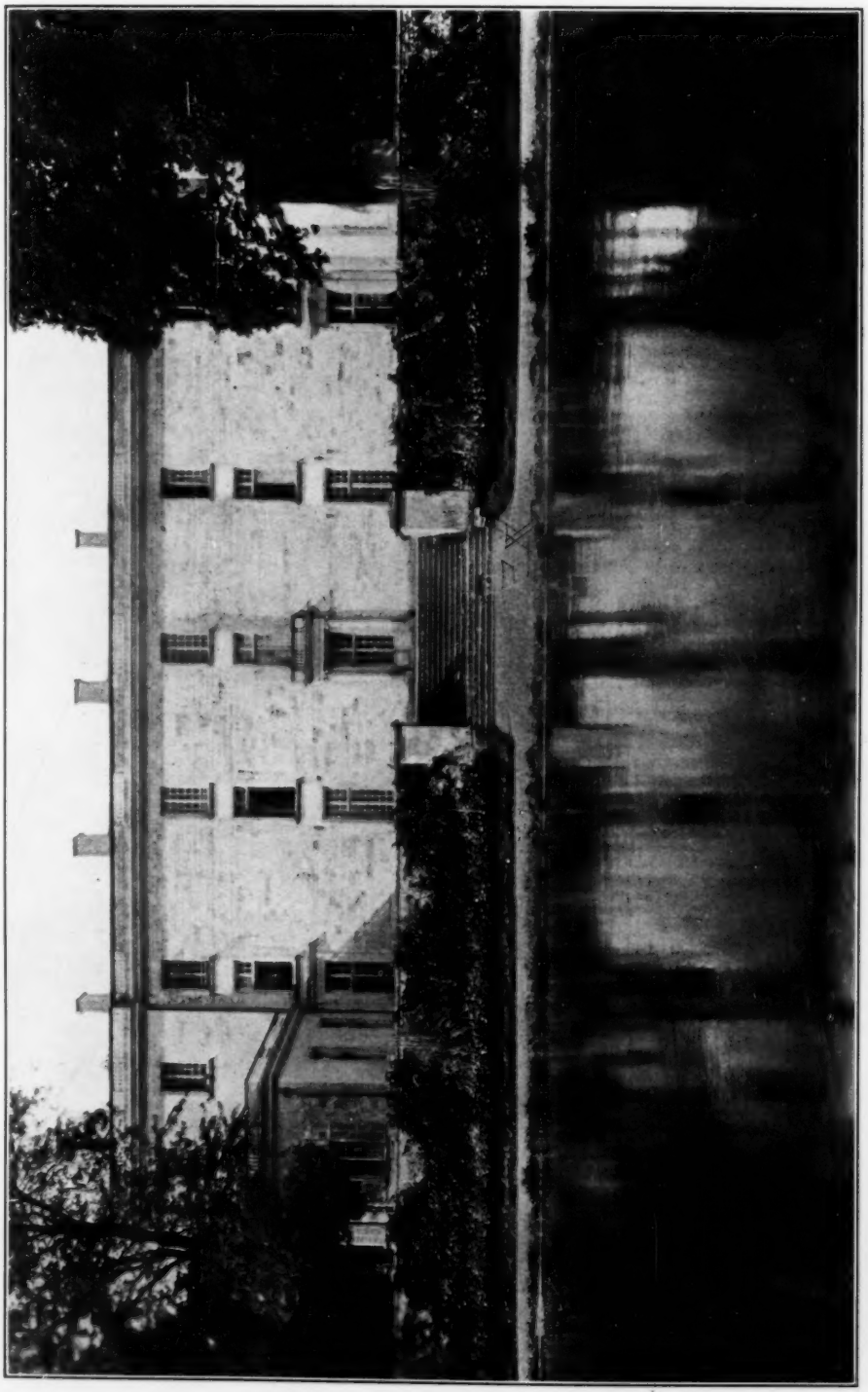
CHÂTEAU OF LE LUDE.

Marble Vase (XVI. Century), one of a number ornamenting the grand terrace and the English garden at the Château of le Lude.

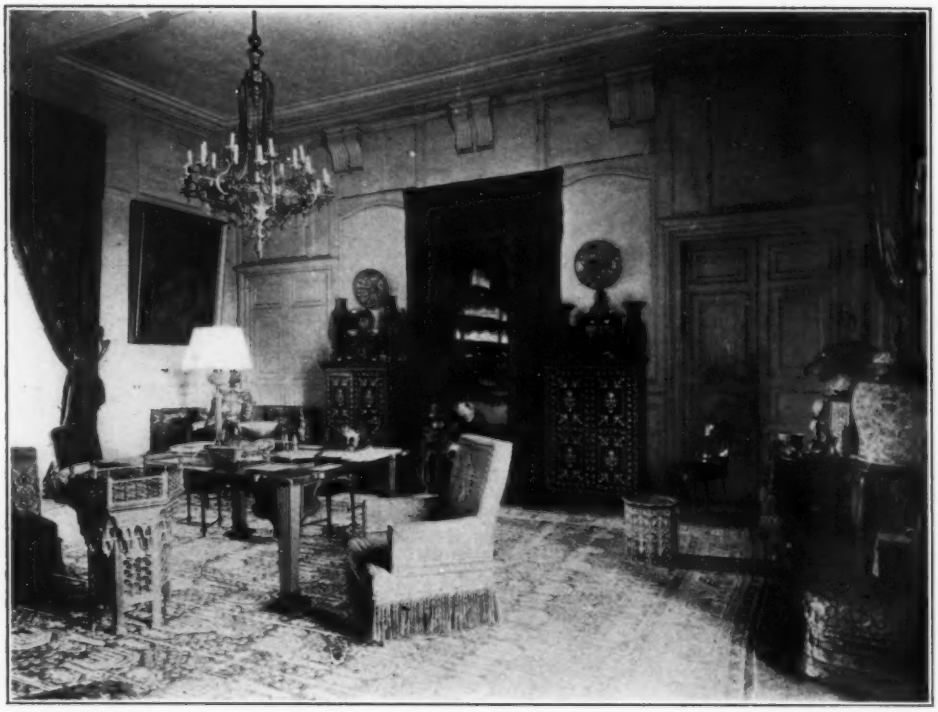
the site of a feudal castle about the year 1520; the work was continued by his widow, Jacqueline de la Fayette, on behalf of their son Jean; and it was completed by Guy de Daillon, the son of Jean. Jacqueline de Daillon's work, which was carried out during her husband's absence at the wars, in which he met his death, consisted of interior decoration. In 1777 there could still be seen in the *salons* and in the galleries of the castle numerous French, Italian and Spanish emblems and devices, interlaced with arabesque. An interesting discovery made in 1853 by M. Delarue, the architect who assisted in the restoration of the château, confirmed this. He brought to light, in a little oratory in one of the towers, a number of remarkable mural paintings by artists of the school of Rosso and Primatice. The principal picture is one representing a lady of Lude sorrowing over the death of her husband. The news that he was killed at the Battle of Pavia is brought to her by a messenger, who is showing her the hero's cloak stained with blood.

To Guy de Daillon we owe the towers and the façade facing the park, as shown by a date, 1577, and the general style of the architecture. Later owners made additions or alterations. Thus, Thimoléon de Daillon, whose sundial, bearing the arms of his family and those of his wife, with their initials and the date 1649, stands in the garden facing the eighteenth-century façade, directed his attention principally to the gardens; whilst the Marquis de la Vieuville, who restored the castle at a cost of over $55,000, pulled down the western wing which connected the two towers nearest the town, replaced it by the present buildings and a three-arched portico, and built the eastern façade. This three-arched porch, which supports an open terrace ornamented with a balustrade, was a happy change, for it opened up the courtyard, which, up to then, had been somewhat dark. This courtyard is oblong, 20 meters by 10, and it is ornamented on three of its sides with pilasters separated by empty niches. Between these niches the walls are decorated with plaques of colored marble,

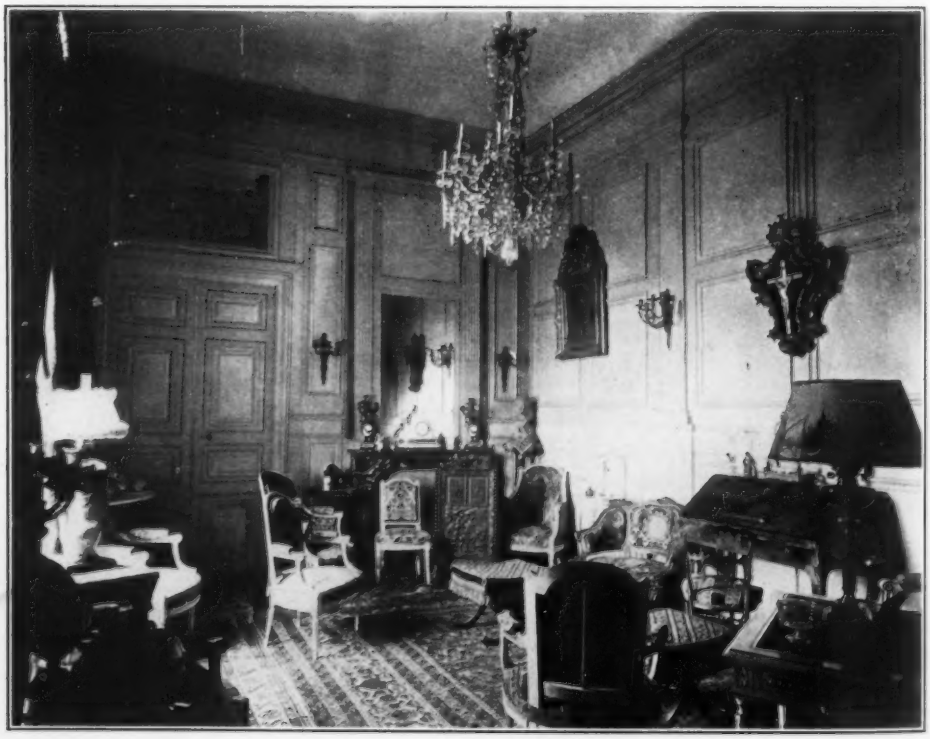
Ancient Sun-Dial at the Château of le Lude.



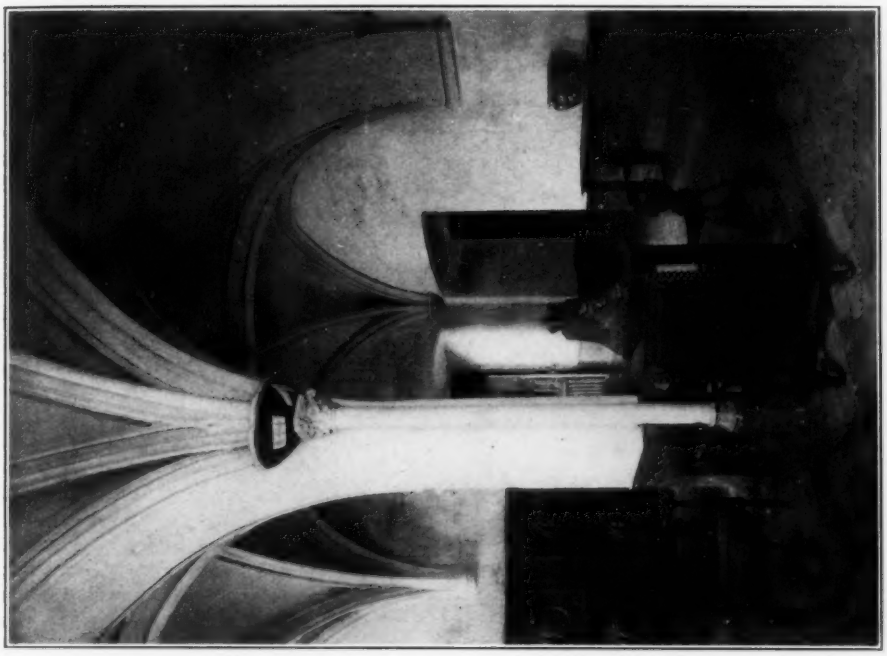
THE CHÂTEAU DE JARZÉ.



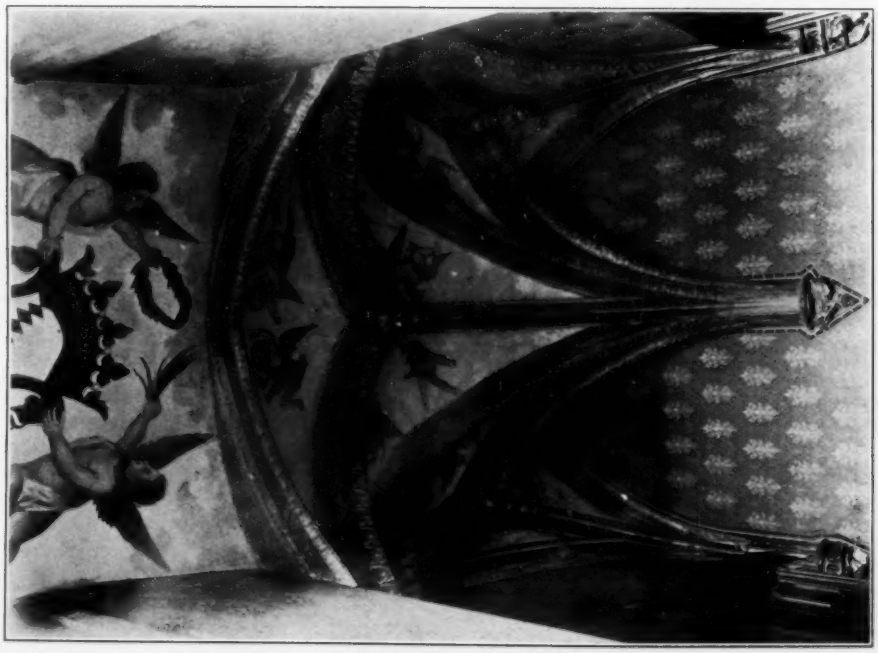
CHÂTEAU DE JARZÉ—GRAND SALON.



CHÂTEAU DE JARZE—PETIT SALON.



CHATEAU DE JARZÉ—FORMER GUARD ROOM.



CHÂTEAU DE JARZÉ—PAINTED CEILING OF THE ORATORY.

symmetrically and tastefully arranged. The restoration of Le Lude was continued in 1853 by the present owner, the Marquis de Talhouët, and has only recently been completed. The northern façade, with its modern equestrian statue of Jacques de Daillon, and the monumental entrance to the grounds from the town, form part of the work he has had carried out.

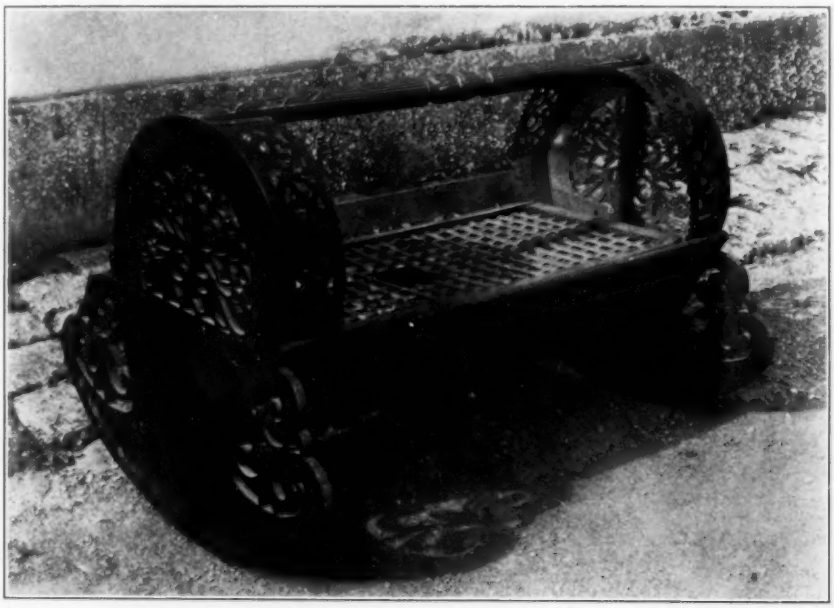
The interior of the château, in spite of the richness of its decoration, proved a disappointment in comparison with what we had seen outside. The four huge machicolated towers give the idea that the building is a very roomy one, but on entering you find that this is not so. With the exception of the large and small drawing-rooms, and the Salle des Fêtes, the rooms are small, and, withal, astonishingly dark. The electric light had to be turned on even in the fairly large Salle des Fêtes in order to be able to see the sculptured mantelpiece to advantage. Yet the sun outside was shining magnificently from a cloudless sky. This sombreness is caused, of course, by the immense thickness of the walls and the equally unavoidable narrowness of the windows, and is one of the disadvantages, from the modern point of view, of most of these ancient castles. Otherwise, the apartments are above criticism. On all sides—in the dining-room, library and drawing-rooms—are choice furniture, pictures, tapestries and other works of art. The recently completed carved stone staircase is a fine example of modern work; and the bedrooms, in one of which Henry IV. slept during his visit to Le Lude in 1593, as shown by a framed letter preserved there, are interesting for their contents or their historical associations.

It was inevitable that, having come so far as Le Lude, we should proceed a little further towards Jarzé, which held forth the prospect of an interesting château, since we were informed it had been built by Jean Bourré, the builder of Langeais. On our way there we came first to La Flèche and then to Baugé, both famous places. The former is celebrated for its military school, which, founded by Napoleon in 1808, in ecclesiastical buildings dating from about the middle of the seventeenth century, has produced many of France's finest soldiers. But this Prytanée interested us less than the pretty Château des Carmes, a former convent near the bridge that crosses the Loir. There is also a château at Baugé—a picturesque, weather-beaten building of the fifteenth century which is attributed to King René, who, according to legend, was very fond of this town and district. The former residence of the good King of Naples (he was surnamed "Le Bon," on account of his paternal character, his pacific government, his constant serenity under ill-fortune, and his love for art and literature), is now the Mairie and Gendarmerie. The best preserved portions are the sculptured doorway to the tower, facing the Place du Château, and the winding staircase within, a staircase surmounted by a fan-vaulting on which are armorial bearings supposed to be those of René. Whilst on the road from Baugé to Jarzé you get a view, on the left, of the towers of the Château de Landifer, which should be visited if you wish to be able to say that you have explored the Sarthe thoroughly. Not professing to have set out to do that, we did not find the time to see this partly Renaissance, partly modern, castle.

Jarzé is a plain, a very plain, country house, situated on an eminence, whence an extensive view can be obtained of much of the surrounding country, even as far as Angers (twenty-seven miles away), when the weather is good. Having Langeais in our mind's eye, we expected to find something a good deal more castlelike than this. But it appeared we had paid our visit a little more than one hundred and ten years too late, for nearly the whole of the castle built by Jean Bourré in 1500 was burnt down in 1794. Two paintings over the doors in the Petit Salon of its comparatively modern successor show its outward appearance. The still remaining portions of the old castle consist of a small guard-room and a little oratory with vaulted ceiling, on which are paintings of cupids. The other rooms are frankly modern. Yet they have one

peculiarity which is certainly worthy of being mentioned: their beauty may lie hidden beneath their lath and plaster ceilings. For beneath these, in all probability, are other ceilings with painted beams. One of the sons of the owner, M. Cloquemin, took us into a bedroom where the ceiling had been pierced, and through the hole, sure enough, we could see the original plafond, with its ornamentation almost as fresh as the day it was painted. The restoration of Jarzé might, therefore, be worth undertaking.

Frederic Lees.



ORIENTAL CRADLE AT THE CHÂTEAU DE JARZÉ.

NEW YORK SCHOOL OF APPLIED DESIGN FOR WOMEN.
Lexington Avenue and 30th Street, New York.

NOTES & COMMENTS

ABERRATIONS AND OTHERS

There have appeared in these pages from time to time articles under the title "Architectural Aberrations." The buildings which are the occasion for these articles are for the most part examples of deficient scholarship combined with a desire to do the original thing at any cost. They are as good as can be expected from their origin. They exercise a useful function in educating the public in matters architectural in arousing interest by their utter lack of propriety.

But there is another species of architectural design, the influence of which for evil is as great as the common run of "aberrations" for good. An occasional example of the latter is about sufficient to destroy the confidence in the integrity and efficiency of the architect which the building public has so slowly acquired. We refer to that class of architectural design which has all the ear-marks of scholarship in its elaboration and detail, combined with a most inexplicable and astounding lack of common horse-sense in its conception. A building which has recently been completed in New York City for the New York School of Applied Design for Women fairly typifies the sort of thing alluded to.

The number of people who take an interest in the appearance and adaptability to purpose of our buildings is increasing and their interest in the subject is deepening. A collection of massive columns supporting entablatures and pediments no longer constitutes architecture for the layman of discriminating judgment. He may be attracted by these elements and sometimes prejudiced by their presence, but generally he will attempt to reach some conclusion as to the merits of the solution which has been adopted as the best under the circumstances. If the building be costly he will inquire whether or not the money has been well spent and judiciously distributed, with due regard for the practical considerations of the problem. He will recognize the fact that the design of a building is a work of art wrought not to be beautiful merely for its own sake, but rather to give expression to the purpose for which it was built. Purpose, then, will be one of the very first things to be inquired into. That being stated, the general character of the accommodations required will give the necessary information on which an intelligent lay opinion of the design would be based. Such a process applied to the building shown on the opposite page leads to a conclusion so obvious as to need no expert to give it expression. We forbear and leave the reader free to express himself in his own terms.

N. P. LEWIS ON CITY PLANNING

Some very sane and interesting remarks that there was need of making were included in an address recently delivered by Nelson P. Lewis, engineer of the Board of Estimate and Apportionment in New York, before the Rochester Engineering Society, at its annual meeting. The subject was the now familiar one of city planning, and he said that while a city could be guided, it could not be clubbed, in its growth. The best opportunities for effective work were in the undeveloped parts, and here, he thought, there should be a plan to which the city should gradually adapt itself. As to the sort of man who should be the controlling spirit in the planning, Mr. Lewis said he was asked whether he should be an engineer, architect, landscape architect, or president of the chamber of commerce. His reply was that he should not be chosen simply because he is a member of one of the professions or because he is at the head of a great commercial organization. He should be chosen because he is a man of broad views, clear vision, and with foresight. The plans should contemplate many, many years of growth. As a rule, "we keep our eyes too close to the drawing board; we should view things from the housetop occasionally." He thought that in Germany, where men are working on municipal projects which they cannot live to see completed, the results were most far-reaching and intelligent.

AN ELEGANT OLD STATION

The demolition of the old Park Square Station in Boston invites reminiscence and architectural comparison. The latter is rather too obvious, with the current periodicals full of vast station projects—the Grand Central and Pennsylvania, approaching completion in New York; the lately finished Union Station in Washington, and the Chicago & Northwestern station beginning in Chicago. But reminiscence involves unconscious comparison and is interesting in itself. In the Boston "Transcript" a writer, delving in the files of thirty odd years ago, quotes a newspaper account of the opening of the Park Square Station. "The magnificent edifice . . . this modern railway palace," the article begins. It "was brilliantly illuminated for the occasion. The great hall of the headhouse, 180 feet long and 44 feet wide, was packed solid with people, five thousand at least being present." "The public are loud in the praise of the perfect manner in which the work has been done. No richer designs or finer finish can be found. Marble founts supply water, and great pendant chandeliers afford light. Upon the walls are painted maps of Long Island Sound and the Shore Line to New York, with all the railroad connections. In addition are the different stations with their distances." The station is declared actually to include, such is its completeness, "a fully equipped barber shop" and a café which is "an elegant room." Yet this was as late as 1875, and in the "Transcript" itself. The writer of this article in question says that he can remember wandering through the marble spaces of the "great hall," marveling at the "finish," and "alternately charmed and repelled by the 'marble founts.' Those founts seemed at times to take the likeness of strays from the 'fully equipped' barber emporium—no, it was only a simple shop in those days—and at other times the sparkling water raised visions of baptismal days in churches, an impression heightened by the upholstered oaken settles, so like to church pews." He recalls that nothing was too good for the Park Square station. Architects were invited to submit plans in competition, and "about six different schemes were presented." The king of Hawaii was present, Reeves' American band furnished music, and the officers and their lady friends filled the gallery. But leaving these frivolous matters, it is quite to the point to learn that the successful competitors were the present day firm of Peabody and Stearns, a firm then so young that this was its earliest large undertaking; that the style was "Victorian Gothic," which was then having a run in this country, though the Park Square Station may have been the first use of it in America for railroad purposes; and that the arrangement of the station was really exceptionally convenient, especially in regard to exits and entrances. This was due in part to its admirable location. The writer says: "In the dimness of closing day"—when the station's "ornament" was lost in shadow—"the front of the station took on almost the dignity of a cathedral; and from the Common, near the monument, the picture of the stream of human beings flowing beneath its entrance arches was one of peculiar charm. Here in Boston, as elsewhere in America, our good buildings suffer from the difficulty one often has in seeing any one of them as a whole. This advantage the Park Square Station had in remarkable measure, and it was peculiarly fitted for its place at the end of certain long vistas across the Common."

NEW YORK TO BE PICTURESQUE

In a long interview printed in The New York Sun, Whitney Warren, of Warren & Wetmore, architects, of New York, is quoted as taking a very hopeful view of the city's present and future architecture. He thinks there has been extraordinary improvement in the last few years, and is reported as saying: "Take a walk along Fifth Avenue by the park and you may be discouraged by the lack of uniformity in the houses of recent construction. But it will come out all right, and when we get through New York will be one of the most picturesque cities of the future. There is a square in Brussels which has the same lack of uniformity in color and in detail and yet is beautiful. For one reason or another the problem of making New York better architecturally and a more agreeable city to live in and get around in has been looked upon as more or less impossible. As a matter of fact, when we think of what Rome was, of what Paris looked like once, and London, too, the problem of New York, an unfinished and in many parts an uncommenced city, is not so difficult after all." There is a large element of unfamiliar truth in this, and doubtless it is more encouraging and helpful to look on the bright side than on the dark. But New York ought to be a great deal more, or bet-

ter finished a city than it is. The great streets and squares that make European, and South American, cities so handsome have been built since New York was old enough, big enough, and rich enough to do the same. The spirit that prevented has not quite passed yet. We are building better than we have before—note the railroad stations, for example. But we still locate even stations meanly, and through cross-roads economy are most likely to tuck public buildings on side streets and shiver at the thought of great improvements. We may be making New York, more or less unconsciously, as Mr. Warren says, picturesque; but picturesqueness is not the character best fitted to a metropolis. We should not be quite satisfied, as he himself points out. He closes with the interesting prediction that "ten years from now the building all over this country will be terrific. Everything has got to be rebuilt because it will be inadequate. Look at the way we are growing and figure it out for yourself."

PLANS FOR CALIFORNIA TOWNS

Of recently prepared city plan reports, the most elaborately published is that made by John Nolen, for the Civic Improvement Committee of San Diego. San Diego is not very big—yet; but in this matter, it has set an example to a great many large cities. As for the report, it is prepared with the conscientious care characteristic of its maker's work. It is not very long in itself; but it is supplemented by many quotations, admirably chosen as a whole, "by illustrative extracts" and by a brief bibliography. Since the San Diego Report was published, another California town, Santa Barbara, has been obtaining a report on its improvement possibilities. Charles Mulford Robinson was the author of this report. It was prepared for the Civic League, but the Chamber of Commerce, the Commercial Club, the Realty Board, the city, and the local improvement clubs as well as the Civic League united to receive it, and then and there formed a Central Committee, made up of representatives from all the organizations, for the purpose of securing the carrying out of the plans proposed. It may be well in this connection to note a recent newspaper reference—in New England—to civic improvement plans. It is coming to be felt, the writer declared, that the agitation of the past in this direction has been wrongly based. "It has been assumed," he says, "that the aesthetics are simply a more or less artistic veneer engrafted upon ugliness. The growing conception is that civic art is only an attribute of utilities, and that the way the people develop their utilities is simply an indication of what is within them desiring expression. If this idea is correct, we shall have civic art only when it is in people to express themselves in artistic ways in the development of their utilities. Civic art will not be developed by tidying up around aimless streets." This is well put; but it ought to be added that one value—perhaps, indeed, the really greatest value—of such a report as that lately obtained by San Diego or Santa Barbara is its effect on the people themselves, is the putting not merely into their minds of a concrete vision of what their town might be and should be, but the putting into their hearts of the wish and purpose to make it so.

DENVER ENTERPRISE

On February 20, the city of Denver began the publication of a weekly newspaper. It appears each Saturday, is entitled "Denver Municipal Facts," is well printed, is amply but not too profusely illustrated, and is so admirably edited as to be most interesting reading—even outside of Denver. Locally it keeps the people in touch each week with current civic history, and as it is sent free on request, no voter need be without the information which it contains. There is nothing dry about the paper. Its whole tone is inspiriting and calculated to increase civic pride in Denver. It has already had the sincere flattery of imitation in several cities, and these papers may yet be the means of injecting a new and very powerful force for good into our municipal life.

An article of general interest in one number was an account of the artistic lighting apparatus now used on the Denver business streets. The selection of the fixtures was put in charge of the Art Commission and original designs were obtained. On each street which receives the ornamental poles—the system is being gradually extended—all wires except those for the trolleys are put underground. This is required as a first step. Sixteenth Street, a central highway in the retail district, was the first street to be so improved. By agreement with the street railway people, and to avoid the multiplying of fixtures, it was arranged to use

the trolley poles as a basis for the lighting fixtures. Now these poles, to bear the weight and strain of the trolley wires, are set to slant out at a slight angle from the tracks. The Art Commission observed that while the slant was not great, it was yet sufficient to destroy the artistic effect which it was desired to obtain by suspending lights from them. Accordingly there were designed cast iron casings large enough to cover the trolley poles and allow for the slant. There results a large, heavy-looking standard, but their even spacing, four to the block on each sidewalk, their black color, the "art nouveau" base and well designed top, and finally their double lamps hanging from decorative arms, give to them a stately and quite striking aspect that rather grows on one. They serve well also as standards for bunting and flags on gala occasions, and are so used by the city during important conventions. At Christmas time, by order of the mayor, large wreaths of evergreen were suspended from the side arms. The next street to be taken in hand was Fifteenth, and an entirely different style of fixture was installed. The trolley poles here were set at so slight an angle that the slant was not noticeable. Instead of a casing, therefore, Chairman Read of the Art Commission, who is an artist of note, designed a decorative base, two collars and a headpiece that could be used on the existing wrought iron trolley pole. These fixtures carry one lamp, which hangs over the roadway by an ornamental side arm. An interesting feature of this bracket is that, at its lower terminus considerably below the arc lamp, it has a little 16-candle power incandescent light under a red shade. The effect as one looks down the street is unique and charming. For some reason, the lighting company supplies the current for the little red lamps free of charge. For the boulevards and parkways the Commission has secured a design for a columnar pole surmounted by a special lamp in an opal globe.

PLACING PARK SCULPTURE

The recent exhibition of plastic art, conducted by the Municipal Art League of Chicago, in Humboldt Park in that city, is said to have proved a greater success than even its friends had anticipated. Most of the exhibits were loaned by the Field Museum; but the purpose of the exhibition was not so much to arouse public interest in sculpture as to give some popular education as to its proper outdoor setting—a point on which there is great need of education. A discussion of this subject at the annual dinner of the Municipal Art League last spring was, indeed, the forerunner of the exhibition. The arranging was done mainly by Lorado Taft, Charles J. Mulligan and Jens Jensen—the latter the gifted superintendent of Chicago's West Park system. The exhibit, which was unique, consisted of formal and informal divisions, the first in the circular rose garden, while the informal groups were distributed along winding walks, on gentle slopes, and against the naturalistic planting on the banks of a stream. Thus the Boy and Frog was set in the actually runing water where a litle streamlet tumbled down to join a larger pool. Lorado Taft, in a talk preceding the opening of the exhibition, disarmed some of the criticism that would naturally have been offered by saying: "We would people our parks not with long-coated statesmen and restless warriors, but with figures of airy grace, fit denizens of woods and meadows." The result was a very beautiful as well as an instructively suggestive exhibition.

ARCHITECTS AND CIVIC ART

A Municipal Art Society has lately been formed in St. Paul, under the auspices of the Institute of Arts and Sciences. At the initial meeting an address was made by Grant Van Sant on "the urgent need of harmony and arrangement in municipal architecture." He spoke of the apparent demand for the creation of handsome approaches to the Capitol and the new Cathedral, and urged the promotion in every practical way of a higher class of architecture and of artistic street improvement. The address was a recognition of the part which good architecture, if adequately set off, can play in handsome city building.

The country residence of Mr. Francis C. Huntington, at St. James, Long Island, published on page 319 of the May issue, was erroneously credited to Messrs. Ford, Stewart & Oliver as architects and designated as located at Lawrence, Long Island. The credit for its design, we are informed, belongs jointly to Mr. Lawrence S. Butler and Messrs. Ford, Stewart & Oliver as associated architects.

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See Sweet's Index, 1908-09 edition, pages 110-111.

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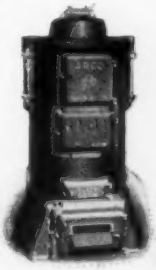

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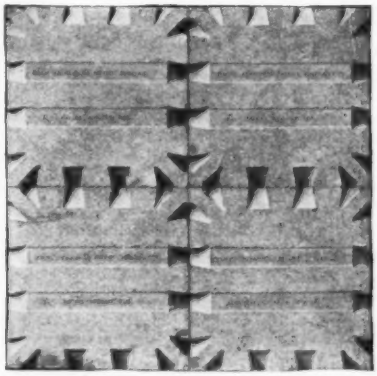

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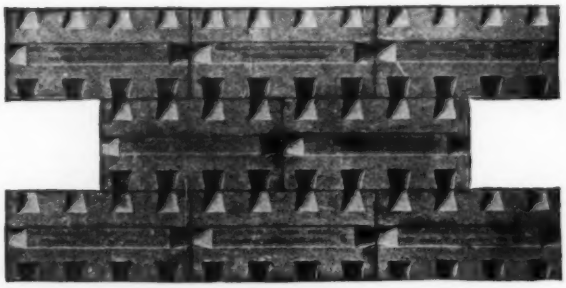

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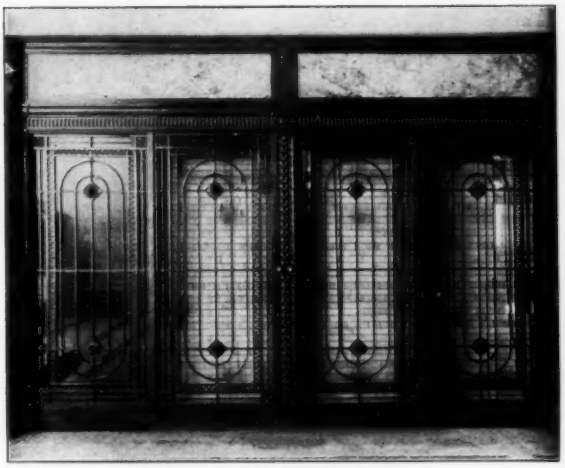

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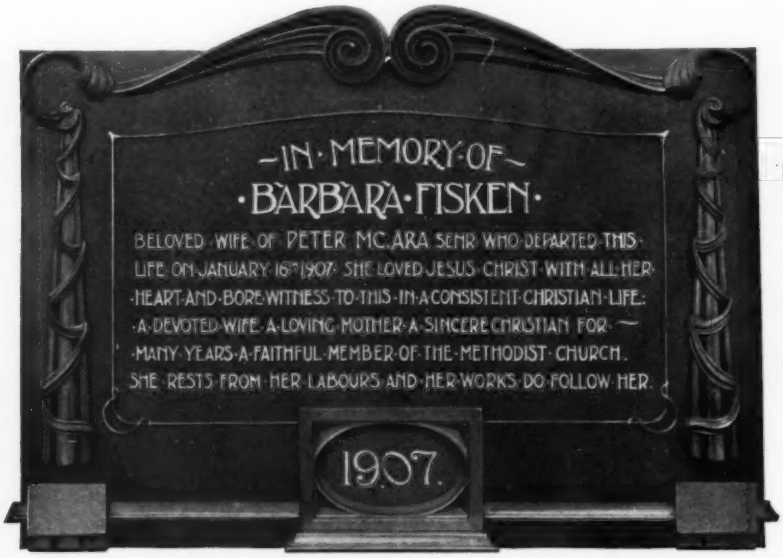
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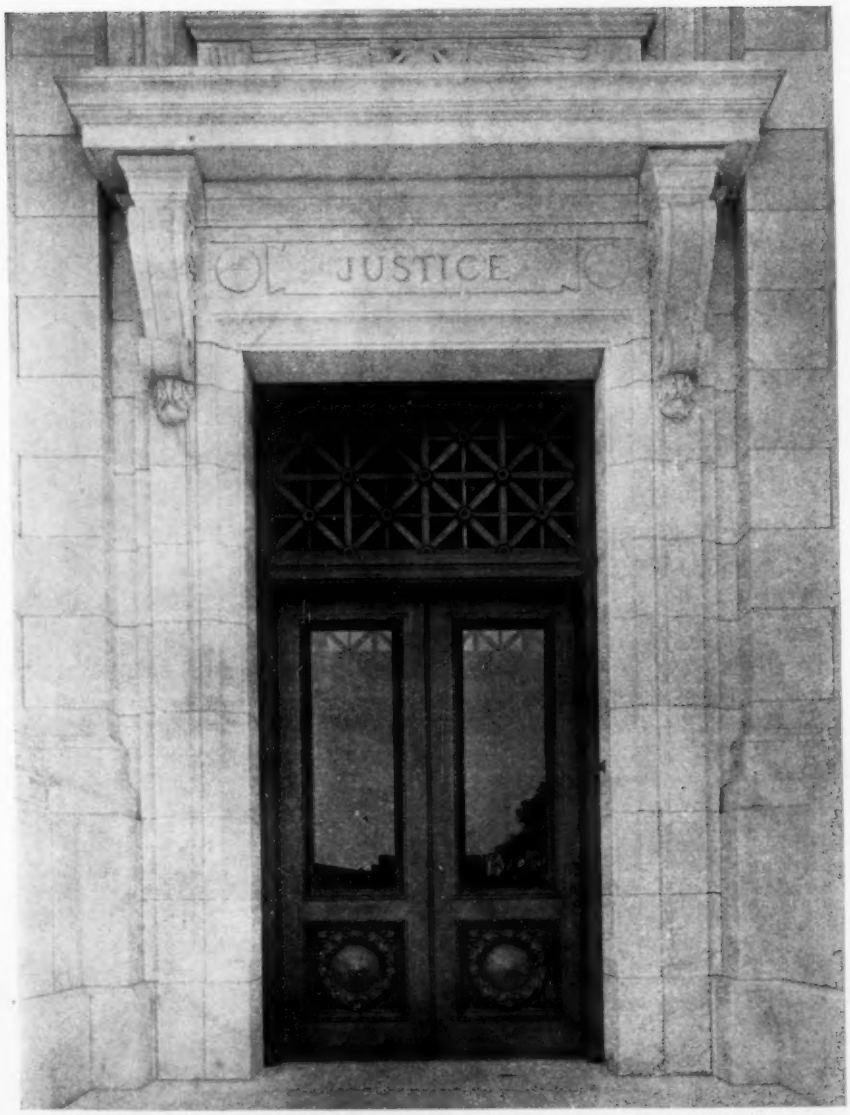

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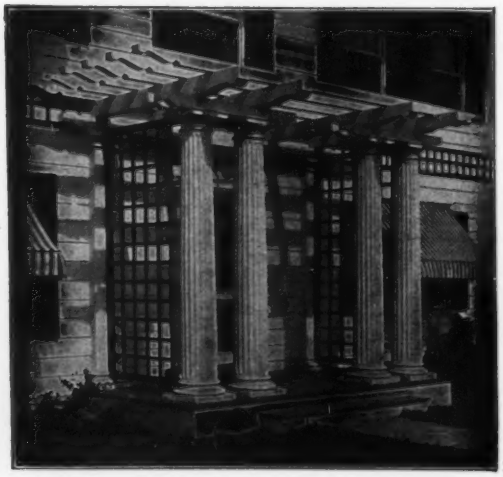

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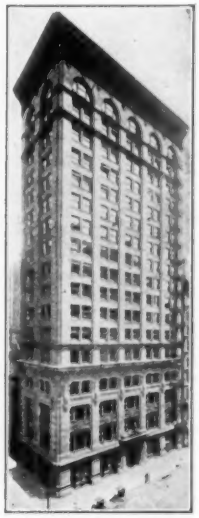

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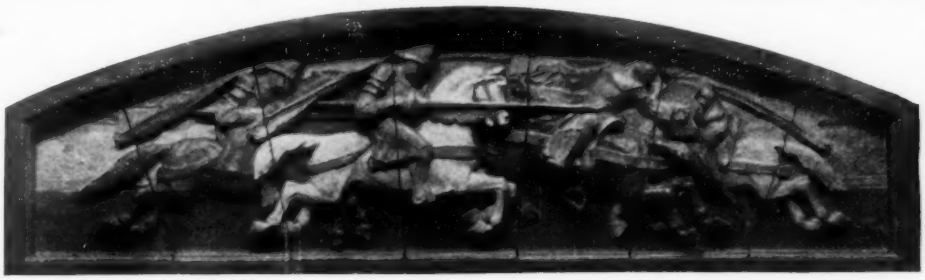

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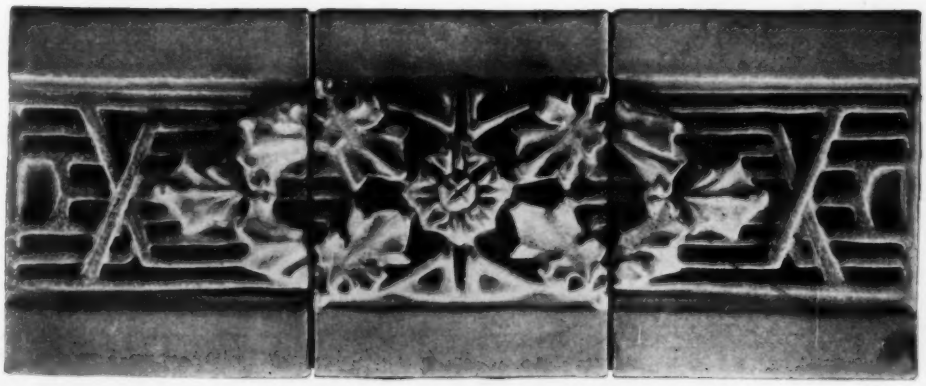

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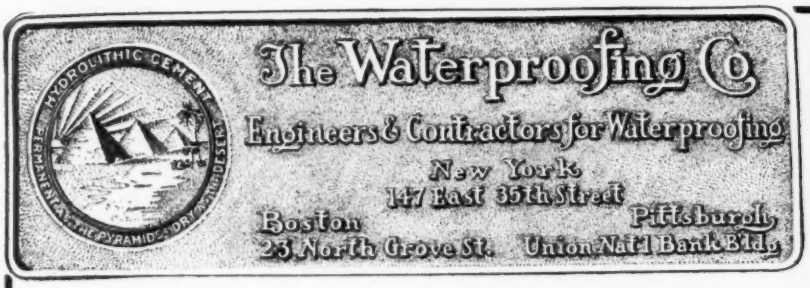

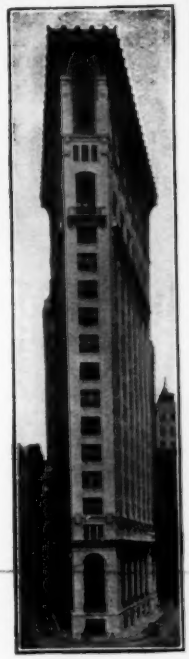

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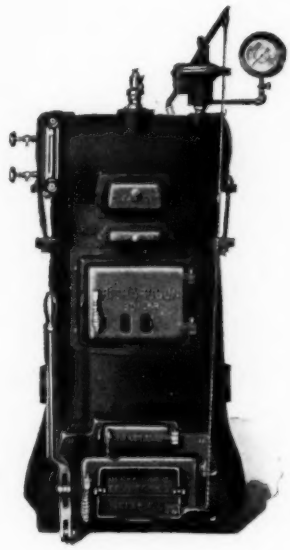

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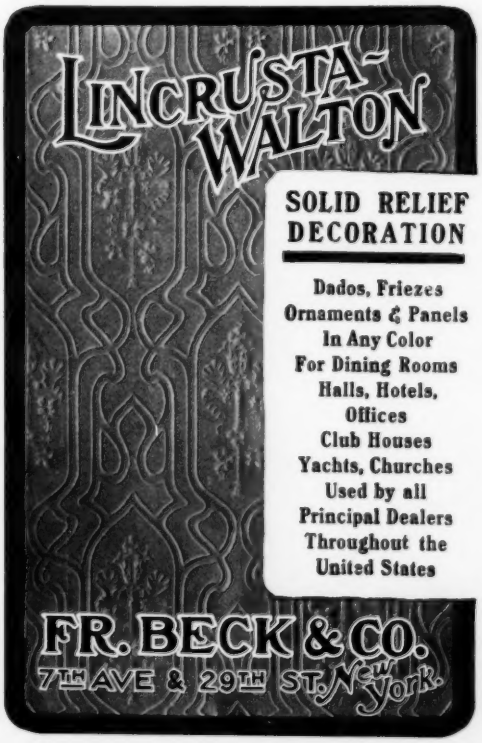

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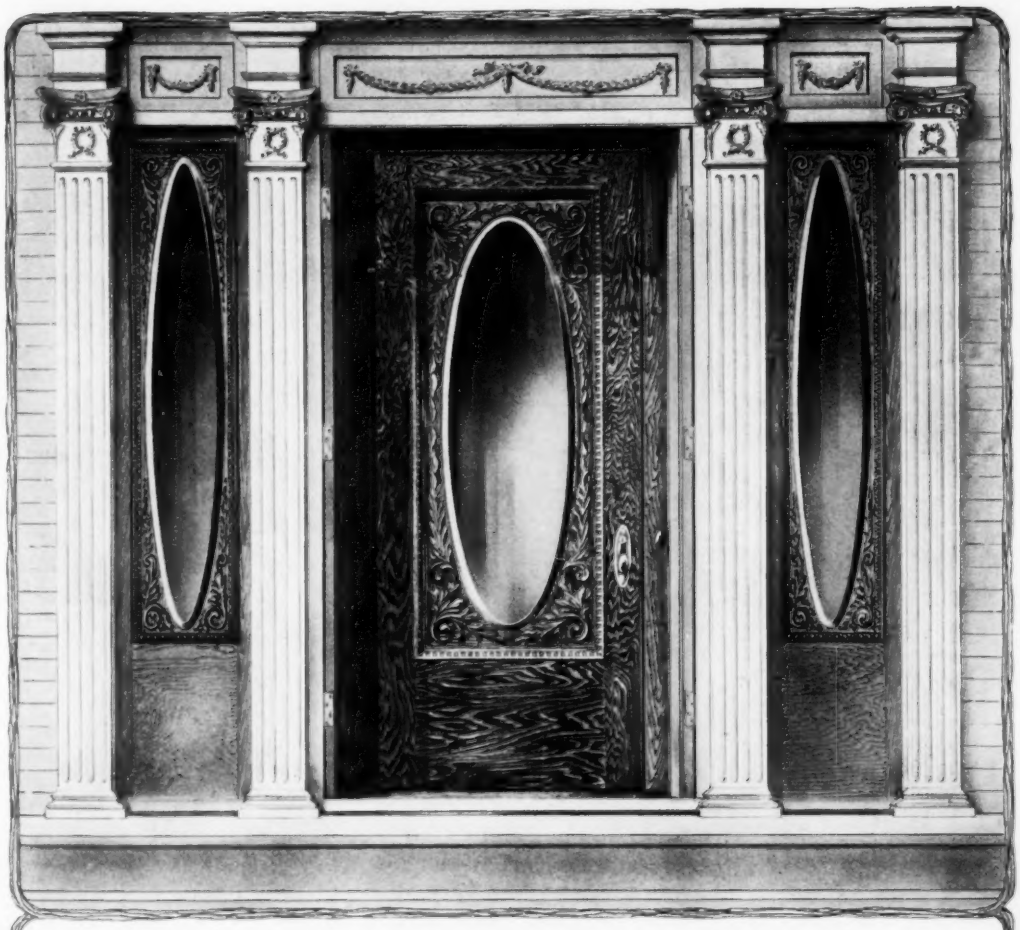

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A Department Devoted to the Interests of Those Who Use "Sweet's"

This is just a little story about how a firm received an order in a very roundabout way through their representation in "SWEET'S."

A new high school building was being projected for a city in Ohio. The specifications had been written, providing for hardware of an ordinary type for the schoolhouse doors. A member of the school board chanced to see the catalogue of the Vonnegut Hardware Co. on pages 592 and 593 of "SWEET'S." The self-releasing device illustrated there interested this gentleman to such an extent that he brought the matter up at the next meeting and succeeded in having the improved safety device substituted for the latch already specified. The order for the hardware had been taken by a well-known Pennsylvania concern, and the changes in the specifications were transmitted to this company. If they have not already done so, these people will order the goods specified from their manufacturers, and they will be used in the building. Now, it is probable that the Vonnegut Hardware Co. does not know that "SWEET'S" was responsible for securing for them this particular order. The member of the school board probably did not communicate with them. The architect merely included their device in his specifications, to be bought by the firm in Pennsylvania who had the contract to supply the hardware. They, in turn, order the goods from the manufacturers without making mention of "SWEET'S."

This is only one of a number of cases which have come to our attention recently where supplies of various kinds and in various amounts have been ordered or specified from the pages of "SWEET'S" without any reference having been made so that the manufacturer can trace the source of his order. "SWEET'S" is and has been for years a vital and ever-ready force working for those manufacturers who are well represented in its pages. Occasionally an architect or builder mentions "SWEET'S" when communicating with a manufacturer, but much more often reference to the book is made, the specification written, and the orders transmitted without the name "SWEET'S" appearing in the transaction at all.

We recently had occasion to call upon a manufacturer who used "SWEET'S" in a small way two years ago. He complained that his representation had brought "no results." He said that the plan of "SWEET'S" seemed good to him, but that having tried it without tangible return, he did not feel justified in making a further test. Becoming somewhat interested in a discussion of the merits of "SWEET'S" and its success in serving the architect and manufacturers, this gentleman said: "I have sometimes found my copy very handy. Why, only the other day I wanted porch columns, and upon turning to 'SWEET'S,' found what I wanted in the catalogue of the Hartmann-Sanders Co." At this point the representative of "SWEET'S" asked this gentleman if, in writing to the Hartmann-Sanders Co., he had stated that the information had been secured from "SWEET'S." The gentleman, in some confusion, had to admit that he had failed to do so, and that in this case "SWEET'S" would not receive any credit for having placed him in communication with the Hartmann-Sanders Co. The illustration in this case was of such a pointed nature that this manufacturer was quite ready to admit that "SWEET'S" might do a great deal for a firm and still the firm not be able to trace every inquiry or every order to the source which had produced it.

We would like to state a proposition with which we think every architect, and also every manufacturer, will agree, especially if the manufacturers will themselves investigate the real facts and not

expect "SWEET'S" or any other means of conveying information to do the impossible. Our proposition is this: That "SWEET'S," going, as it does, to ten-thousand offices where building materials are specified and bought, will perform a valuable and economical service for every manufacturer represented therein in just the proportion that the manufacturer's goods are used in building construction, and in just the proportion that his goods are properly catalogued in "SWEET'S." "SWEET'S" is the most convenient source of information in every office where it is on file. The buyer seeking information looks in "SWEET'S" before looking elsewhere, because it is most convenient for him to do so. If a manufacturer has his catalogue in "SWEET'S," he can rest assured that information regarding his goods is in the one place where the architect or other purchaser would prefer to have it. Those who buy building materials would rather refer to "SWEET'S" than to separate catalogues, because by so doing they save time. They find a great amount of information in condensed form. They do not have to wade through pages and pages of useless matter, and the manufacturer whose catalogue is in the right place has a tremendous advantage over the manufacturer whose catalogue is on a shelf somewhere, possibly with the dust of months on its cover. Now, we would further state that if a manufacturer makes an article used in building construction, and has same properly catalogued in "SWEET'S," he has a paying investment, *whether he hears directly from his catalogue or not.* It is very pleasant, of course, to receive a letter, saying, "Having seen your catalogue in 'SWEET'S,' I would like to buy a million dollars' worth of hardware"; but, unfortunately, most people who use "SWEET'S" or any other source of information have neither the inclination nor the time to give proper credit. In many cases we know it does not even occur to the architect to state the source of his information, for the reason that he uses "SWEET'S" just as constantly as he uses the telephone book, and does not see why he should bother either himself or the manufacturer with what he considers entirely superfluous matter. An architect in Brooklyn called us up recently to ask the name of the manufacturer of a certain device for draining cellars, which he said was catalogued in the 1906 "SWEET'S," but which he did not find in subsequent editions. The device in question is manufactured by Philip Braender, who is another one who failed to receive *direct* returns from "SWEET'S." The architect in question said he had specified no less than eight installations of this device from "SWEET'S," and when asked by us whether he had stated the source of his information when communicating with the manufacturer in the past, said that he had not done so; that, in fact, were he to mention "SWEET'S" each time he specified an article from that book, his specifications would read nothing but "SWEET'S."

Another case from Fort Collins, Colo., is interesting. Architect E. Francis Williams specified goods manufactured by the Kewanee Water Supply Co. from "SWEET'S," He did not confide in the Kewanee people, so far as any mention of "SWEET'S" was concerned, and the manufacturers did not know what had brought them these orders until we, by chance, heard of the matter and brought it to their attention. These and many other cases which we might quote prove, we think, in a manner absolutely conclusive that "SWEET'S" is working all the time for those who use it, and that no manufacturer can, in justice either to himself or the publication, expect to trace even a small proportion of the orders produced by this system. If a manufacturer chalks up only one order from "SWEET'S" during the year, when that same source has produced ten orders, he is in danger of rejecting a most excellent aid to his sales department.

To return to our original story of the Vonnegut Hardware Co. We presume this paragraph in "SWEET'S" Bulletin is the first notification they have had that a certain order of hardware for an Ohio school was brought them through "SWEET'S."

As having a very considerable bearing on the subject treated in the foregoing, we offer herewith extracts from a number of letters received in acknowledgement of the 1909 "SWEET'S." It

will be evident, from a careful analysis of these letters, that many of these purchasers of building materials are using "SWEET'S" *constantly* in their search for information. We will not attempt to analyze these comments, but submit them as being absolutely the strongest presentation of the value of "SWEET'S" which it is possible for us to make.

I find that it is becoming more and more serviceable to the architect, and in my office it is referred to more than any other catalogue. We look for it in "SWEET'S" first. —C. F. W. LUNDBERG, 310-311 Provident Building, Tacoma, Wash.

We find "SWEET'S" Catalogue of Building Construction very valuable for reference in its present form, and I am sure the value will increase as additional firms and material is added from time to time in the new issues. I shall be very glad to receive a copy of the new edition to replace the old one.—Major and Quartermaster, U. S. A., West Point, N. Y.

We have received your valuable "SWEET'S" Catalogue for 1909, and wish to return our thanks for same. In dealing exclusively with Architects, Contractors and Builders, we have been obliged to refer to this book at numerous times in order to get the goods specified. We have in our office the catalogues of all manufacturers in our line, but have no catalogue we fully and more highly appreciate than the one you have sent us, and I will say that through the advertisements in this book we have in the last three years purchased approximately $30,000 worth of goods that might not have been purchased if not seen in your book. Thanking you again, we are H. E. SMITH CO., Builders' Hardware, 287 Broadway, New York City.

Your exquisite new catalogue has just come in, and I assure you that it will not find a grave in the waste-basket, where most of the catalogues go nowadays. I use "SWEET'S" Index almost exclusively in my specification work, and a few catalogues like yours, for instance, are preserved for their artistic merit. I think the days of indexing and caring for the hundreds of catalogues of the thousand and one different sizes are about over with the architects. Thanking you for the same, I remain L. D. BAYLEY, successor to Bayley & Goodrich, Architects, 839 Main Street. Lewis D. Bayley, Hartford; D. Parsons Goodrich, Connecticut.

We would be pleased to receive one of your "SWEET'S" Indexed Catalogues for our office at Santa Fe, New Mexico. We have the one here in use, and cannot well spare the same. We are just preparing the specifications for some large work, and can use a copy to excellent advantage.—I. H. & W. M. RAPP CO., Trinidad, Colo.

We consider this a very valuable reference book.—S. ASHFORD, Inspector of Buildings, Office of Engineer Commissioner, Washington, D. C.

A very complete and up-to-date publication and in almost constant use by this office. Thanking you, I am L. C. SCHERER, Captain and Quartermaster, Third Cavalry, Constructing Quartermaster.

I take this occasion to thank you and to say that I have been using goods found by reference to the former edition of "SWEET'S."—ELWOOD THOME, Hempstead, L. I.

I find the catalogue a fine adjunct to the office. It has been a great time saver and of inestimable value for reference, not only to myself but to different contractors who when figuring work come up to the office for information.—JOS. P. JOGERST, Wausau, Wis.

A most valuable compendium of building requisites in concentrated form, eliminating all searching for stray catalogues, a most important addition to all architect's libraries. Success to its authors.—EDWIN L. WESTON, 126 7th Ave. N., Seattle, Wash.

We are much pleased with the book, as it will be of great service to our members.—DULUTH BUILDERS' EXCHANGE, 504 Lyceum Bldg., Duluth, Minn.

We have given this book a prominent place in the Exchange and feel sure that the mutual advantages from having it here will be many.—NASHVILLE BUILDERS' EXCHANGE, Nashville, Tenn.

Many thanks for the book. We have needed it several times since we wrote for it about a week ago.—HUTCHISON & WILLETT, Huntington, W. Va.

Your catalogue is fine. I could not get on without it. Many times in figuring I find certain things specified that are almost invariably listed in your "SWEET'S" and many times the prices, which makes it so convenient. Much success to you in your great work.—A. H. KRAUSE, Frederick, Okla.

Please accept my thanks for this copy of "SWEET'S." I have been able often to obtain satisfactory information from "SWEET'S" that might have often been difficult to have found otherwise. It's always right there and indexed, saving the trouble of looking up catalogues or circulars. The architects are under obligations to "SWEET'S."—P. J. ASHLEY, 3409 Main St., Kansas City, Mo.

Editions are better every year.—R. B. NEELEY, 918 W. Illinois St., Urbana, Ill.

This publication is exceedingly valuable

and is of great convenience to this office.—WM. BACH, 1st Lieut. Coast Arty. Corps, Construction Quartermaster.

We thank you very much for above, find it very useful in our work. Very comprehensive.—HENRY K. FIELDS CO., Alexandria, Va.

It is a valuable collective book which has been quite extensively used by our members; it also serves as a medium to place one in touch with materials and firms in this industry.—GEO. E. WALLACE, Builders' and Traders' Exchange, Peninsular Bank Bldg., Detroit, Mich.

We are very much pleased with our "SWEET'S." For some time we have used your last year's edition through the courtesy of Geo. A. Fuller Co.—J. L. MERY ENGINEERING & SUP. CO., Monadnock Building.

The present "SWEET'S" is a fine and a most valuable work, which, in our opinion, is to-day invaluable in an architect's office. We heartily congratulate you on its production. —W. H. AUDSLEY, 18 West 27th St., New York City.

"SWEET'S" Index is becoming more perfect with each issue. We are beginning to use a portion of our files heretofore occupied by loose catalogues for other purposes. The checking list, together with the Indexed Catalogues, very materially simplifies specification writing.—STANTON P. LEE, 314-315 Cannon Pl., Troy, N. Y.

I have found the copy of "SWEET'S" to be invaluable in my architectural work.—B. G. LEAKE, Dundee Building, Fort Worth, Texas.

Your favor of the 27th ultimo addressed to the Construction Quartermaster, Fort Hunt, Va., has come to my notice, and I would appreciate a copy of the new "SWEET'S" for my personal use in the discharge of my duties in my official capacity. Since I have been stationed at this post, nearly four years, I have found "SWEET'S" to be of a great help, and I do not believe it could be improved so far as the requirements of this office are concerned. If you will inform me of the cost of forwarding it to Washington, D. C., I will gladly send you the amount.—GEORGE H. REESE, Acting Post Quartermaster Sgt., U. S. A., Office of the Quartermaster, Fort Hunt, Va.

We are highly pleased with your 1909 edition of "SWEET'S" Catalogue, and compliment you on the same. We also wish to express our appreciation of your kindness in keeping us on your list.—F. C. CARSTAN.

We use it a good deal in our purchases out of city. Have a place for it here in office for benefit of our clients as well as ourselves.—CHARLES H. TAFF, Stamford, Conn.

Have just recently cleaned up my office of all catalogues, etc., leaving nothing on my desk for reference but "SWEET'S," and am recommending some of my friends to get in line and place their advertising where it will be convenient for every day use.—G. L. LOCKHART, Nashville, Tenn.

I wish to express my appreciation of "SWEET'S." The one I have is in almost constant use here at the University. Its value is hard to estimate.—JOHN N. BRADFORD, Dept. of Architecture, Ohio State University, Columbus, Ohio.

Many thanks for the copy, as it will be of great help in my work.—H. G. RICHEY, Supt. of Const. U. S. Public Buildings, Spokane, Wash.

Would like to do away with my extensive catalogue system. Your condensed catalogue is much more convenient for consultation. My file of scattered printed matter is a drag to the work. Could use a copy of "SWEET'S" to advantage just now, as I have twenty-two houses and buildings under design and erection.—DEAN E. BASKERVILLE, Tippecanoe City, Ohio.

The most useful reference book in our office.—BEEZER BROTHERS, Northern Bank & Trust Bldg., Seattle, Wash.

"SWEET'S" is of great assistance in making up specifications, especially so when I am in need of some specialty or articles not carried in stock on this coast.—FRANK P. ALLEN, JR., 205-6-7-8 Crary Bldg., Seattle, Wash.

We find your "SWEET'S" Index the most useful book of reference in our collection. Hardly a day passes without a consultation of its pages.—BUILDERS' EXCHANGE, 226-232 Stimson Block, Los Angeles, Cal.

Many improvements are noticeable over previous issues. The Checking List appended, I think, will be found a valuable adjunct.—POSTLE, MAHLER & DENSON, 706-707 Germania Life Bldg., St. Paul, Minn.

We have a number of representatives of various concerns calling upon us constantly, and they often ask if they may send catalogues; our reply invariably is no, that all catalogues received are consigned to the waste paper basket, as we have not the room nor time to keep them properly filed, and that we depend upon "SWEET'S" entirely. Often we show "SWEET'S" and advise people to get into it rather than to send out a mass of expensive catalogues that are invariably consigned to the waste paper basket.—OFFICE OF GEORGE BURNHAM, Architect, 120 Exchange St., Portland, Me.

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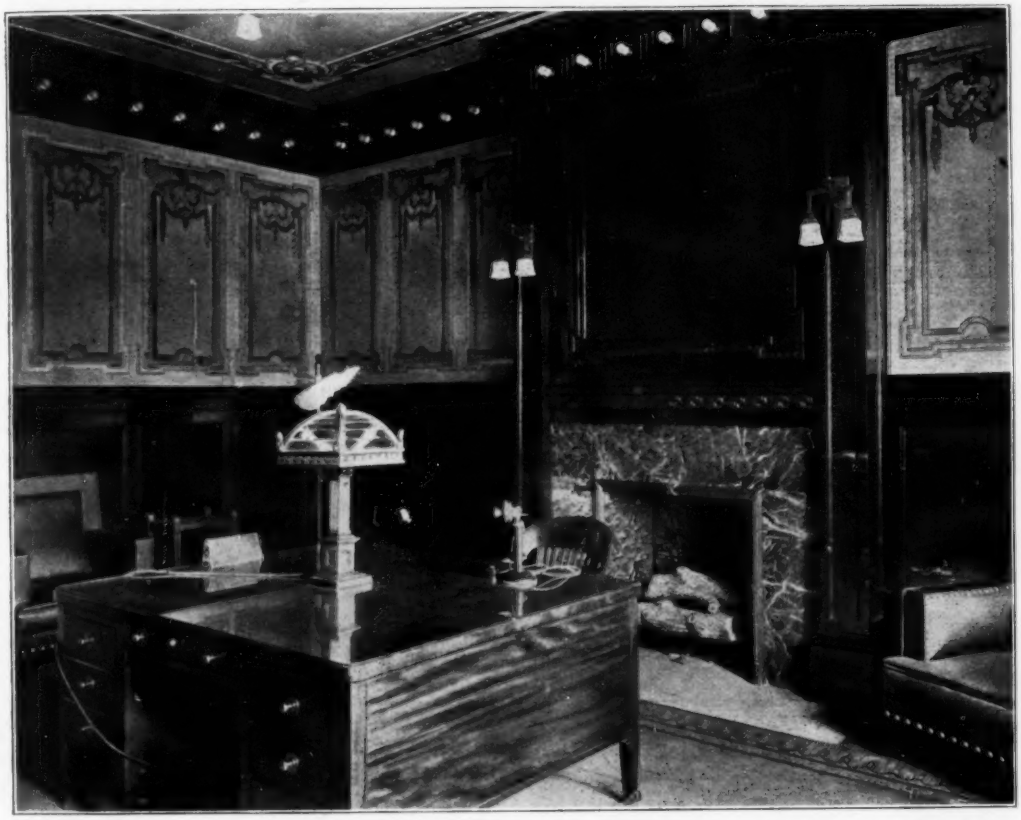

We do not believe that there are many architects, who have not recently investigated the mahogany market and the conditions under which it is at present operated, who begin to realize that mahogany is the only wood the price of which has gone down steadily for the past fifty years. The prices of all other cabinet woods have gone up and the quality deteriorated.

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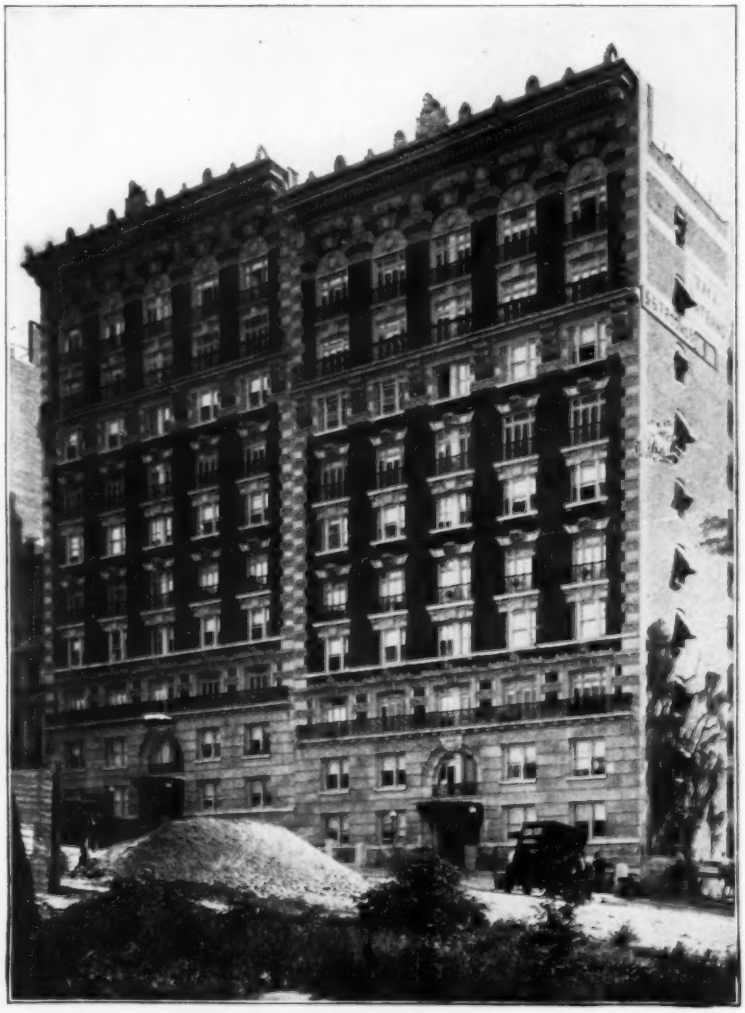

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It is the intention to show from month to month, in these pages, a representative series of buildings all over the United States in which Red Gum has been chosen as the

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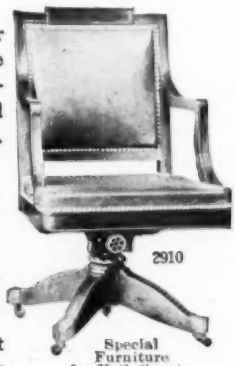

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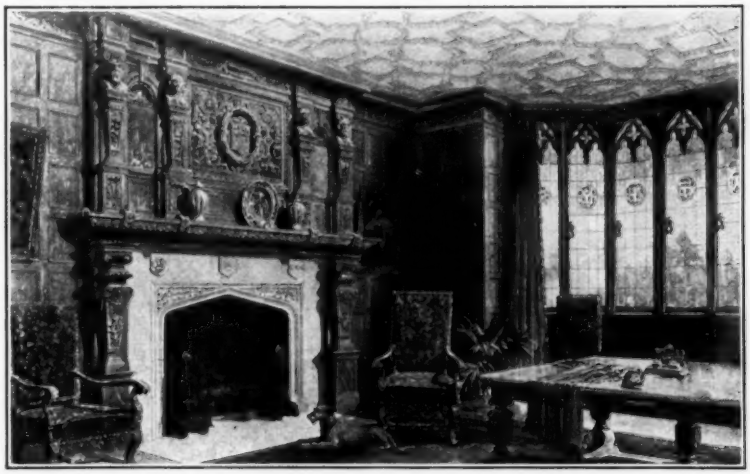

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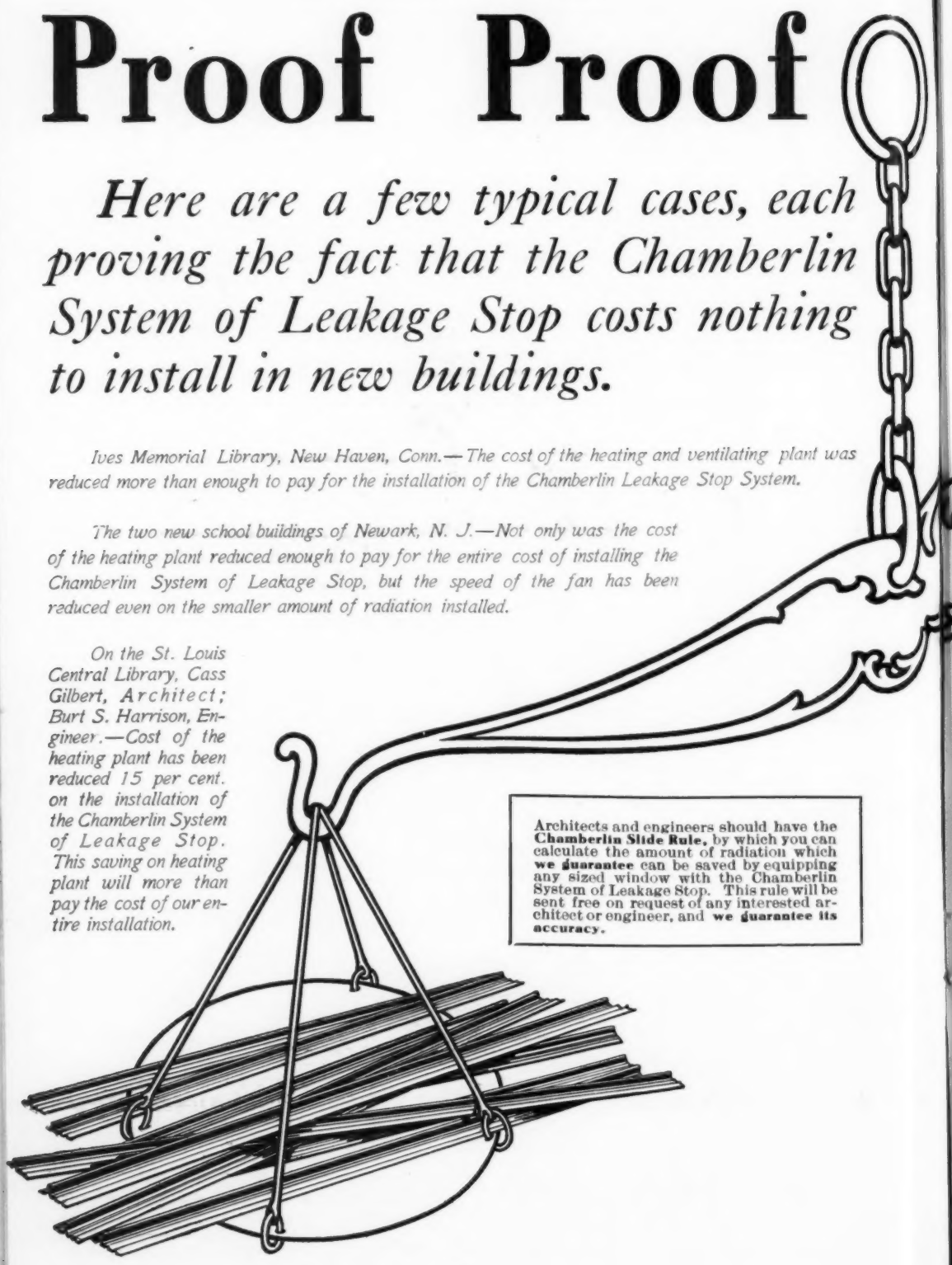

Architects and engineers should have the **Chamberlin Slide Rule,** by which you can calculate the amount of radiation which **we guarantee** can be saved by equipping any sized window with the Chamberlin System of Leakage Stop. This rule will be sent free on request of any interested architect or engineer, and **we guarantee its accuracy.**

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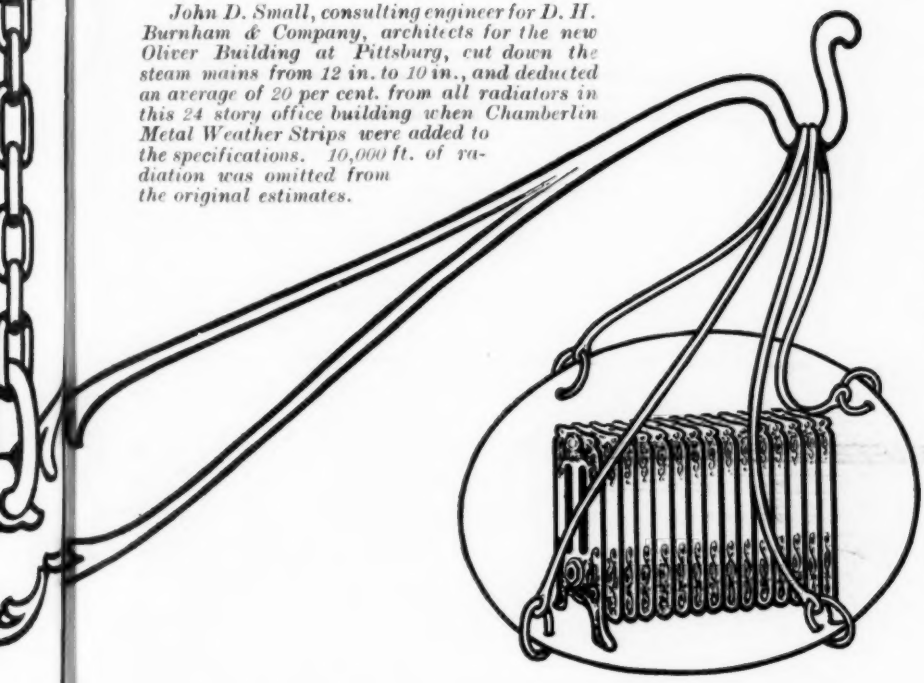

The saving on the heating plant more than pays for the installation, leaving the net cost of the Chamberlin protection actually less ***than nothing*** *on this notable building.*

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For detailed information in regard to this legal guarantee, for engineering data and formulae for figuring radiation where the Chamberlin system of window leakage stop is used, and correspondence regarding blue prints of buildings under consideration, address the engineering department at Detroit main office.

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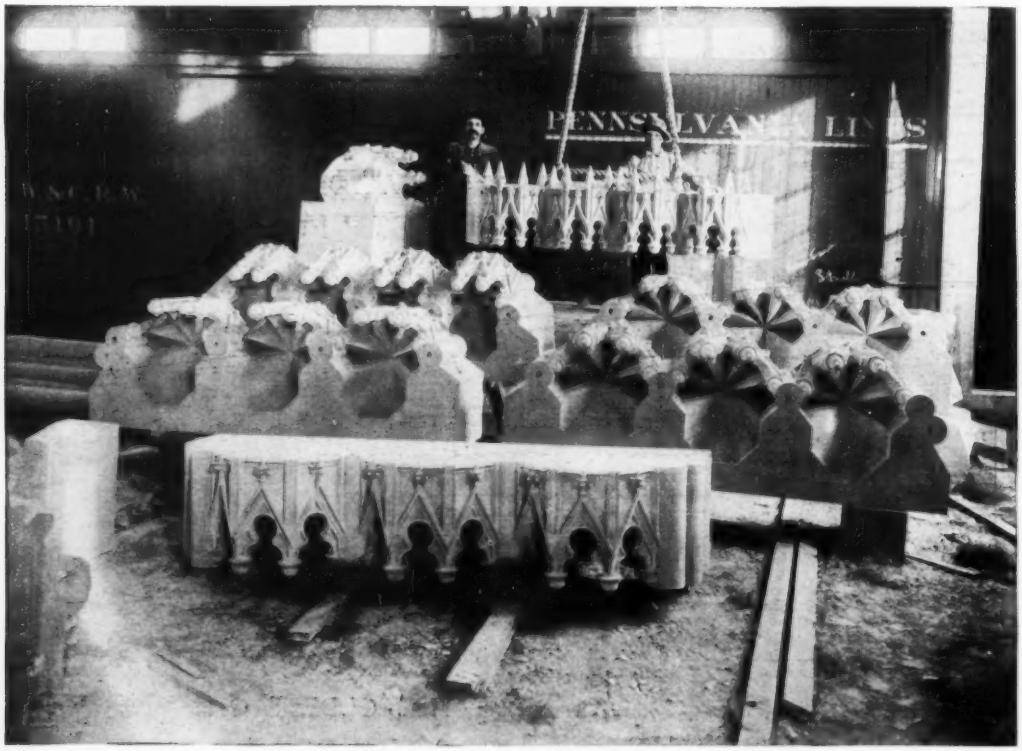

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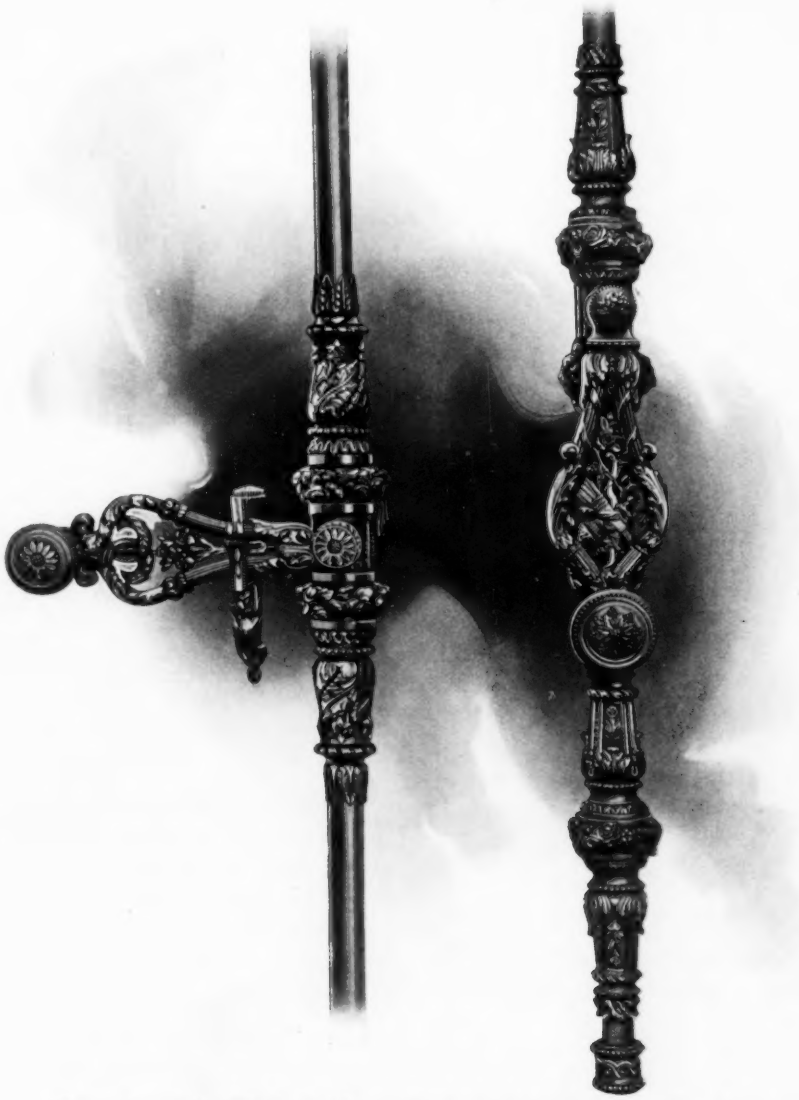

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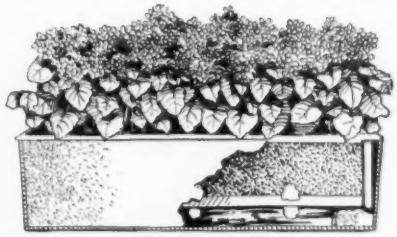

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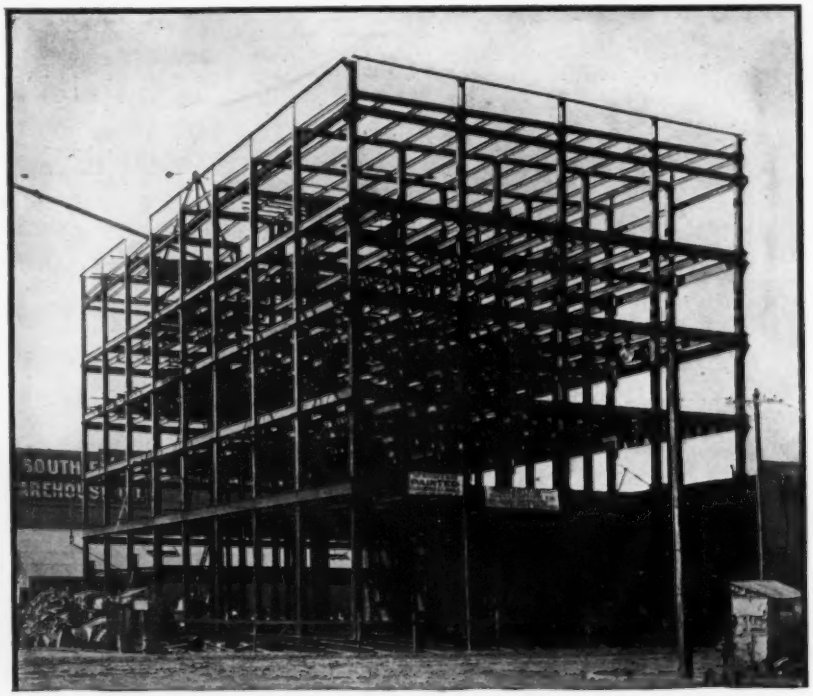

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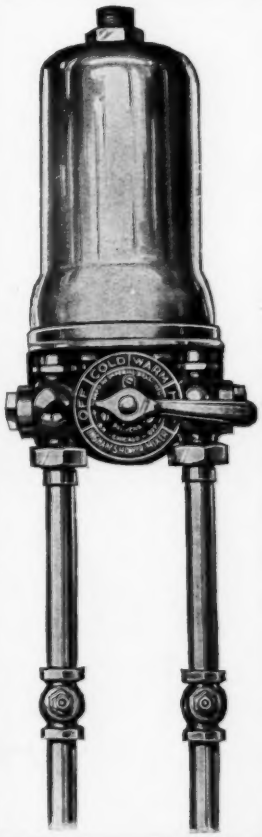

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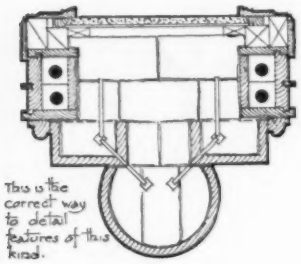
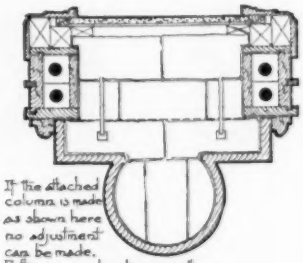


This is the correct way to detail features of this kind.

Fifty other examples of good and bad terra cotta construction will be found on pages 119–125 Sweet's Index Any architect's office

THE NORTHWESTERN TERRA COTTA COMPANY



If the attached column is made as shown here no adjustment can be made. If the pieces shrink unequally an unsightly wavy line will result.

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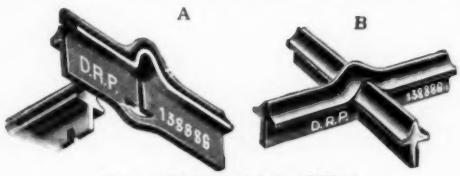

(Note: Finished Joint "B")

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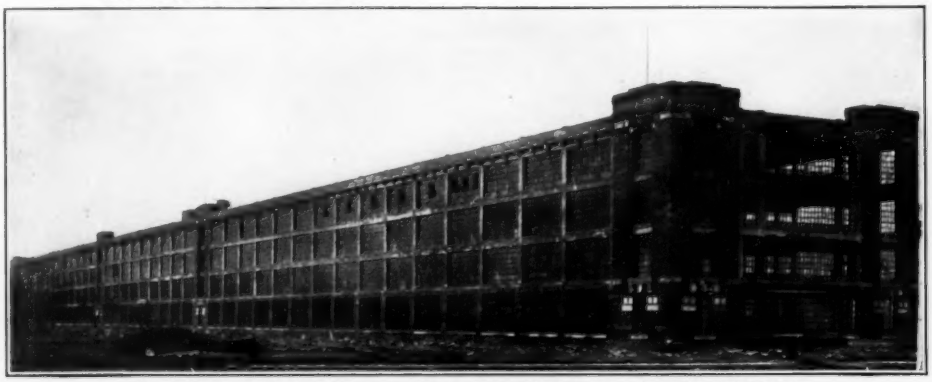

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J. E. Scripps Corp., Detroit, Mich.	A. C. Varney & Co., Architects.
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Belle Isle Bath House, Detroit, Mich.	Stratton & Baldwin, Architects.
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Utah Mining, Machinery & Supply Co., Salt Lake City, Utah.	General Engineering Co., Engineers.
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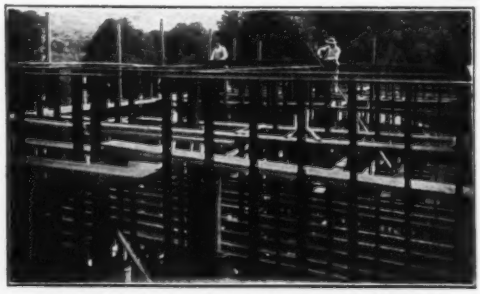

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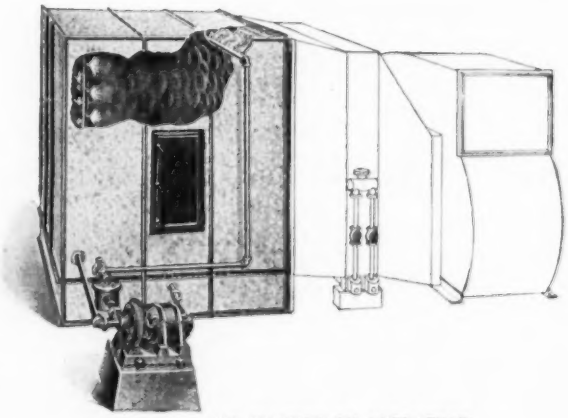

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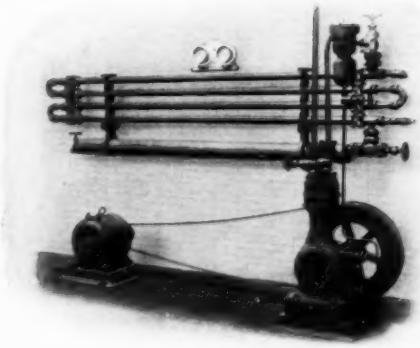

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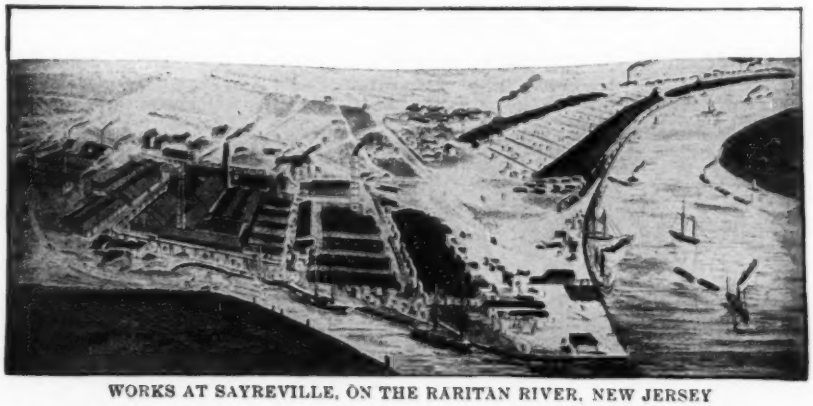

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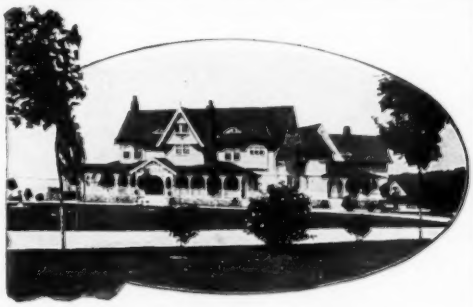

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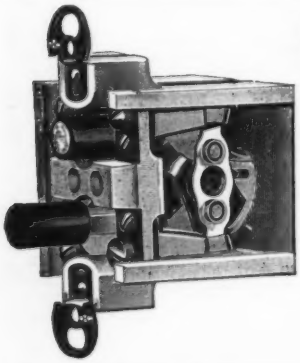

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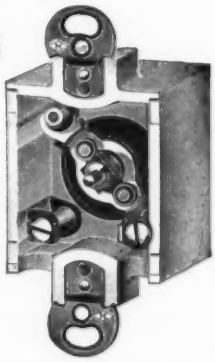

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A HUGE BRIDGE or a sky scraper cannot be allowed to rust without imperilling vital interests. The increasing size of modern steel structures demands the absolute integrity of the metal. Preservation against its subtle foe is a necessity.

Numerous laboratory and field tests have shown varying degrees of efficiency on the part of one paint and another, but only one—red lead—has absolutely *prevented* rust under the severest conditions. This is why architects so generally specify red lead. They know that nothing else so nearly meets every demand as a preventive of rust. The growing importance of red lead is directly proportionate to the increasing use of structural steel.

National Lead Company's Red Lead complies in composition, color and texture with the strict specifications laid down by the U. S. Government, the city of New York, the large railroads, the American Bridge Co., and other large consumers.

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New York, Boston, Buffalo, Chicago, Cincinnati, Cleveland, St. Louis,
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See Sweet's, '09, page 1306

Enamels

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DURABLE · SANITARY · INEXPENSIVE

Beautiful Water Color Effects

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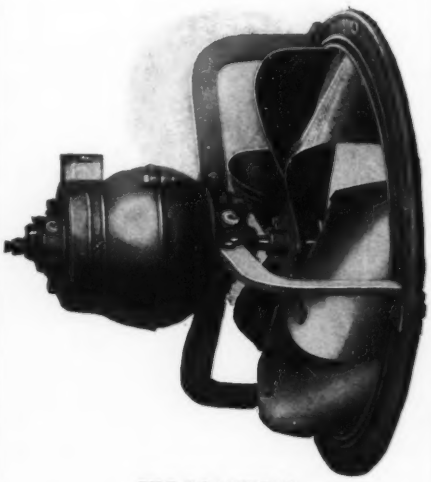
The

Blackman Ventilator



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With direct connected electric motor
A general type only. Many variations.

Constructed in sizes from 18 in. to 12 ft. in diameter, and for horizontal and vertical service.

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by heating and ventilating experts as an essential factor in diffusion of warmth and removal of noxious air in

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Manufacturers
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It does not matter very much what a thing costs—the question is, "Is it a good investment?"

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but the value is there.

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Fine Inks and Adhesives

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Commercial National Bank Building, Chicago, Ill., equipped with Western Electric Apparatus.

is never below the supply in the office building equipped with all modern conveniences. Principal of those are the electrical appliances such as the telephones, electric light, elevator, ventilator, etc.

Reliable electrical apparatus in this office building insures satisfied patrons.

That is why the architect who specifies **Western Electric Apparatus** knows that he is serving his clients' best interests. Its reliability has been proven in the largest and finest buildings in the country.

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Write Our Nearest House

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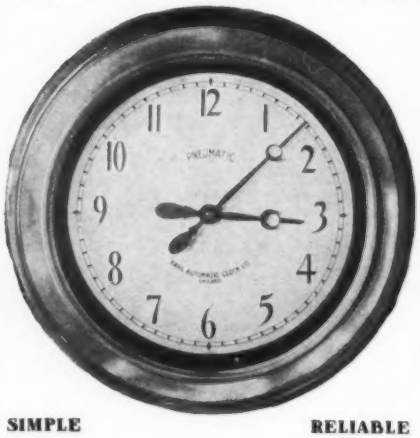

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Pneumatic Clock System
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103 Park Ave., New York City
See "Sweet's" Index—Page 1178

¶ Electric Work installed for single as well as the modern Duplex Apartment Houses at as moderate a cost consistent with workmanship of the first class successfully applied to the best in raw materials.

¶ The Brussel Method of Electric Construction represents the highest development of modern engineering — it has stood the test for years.

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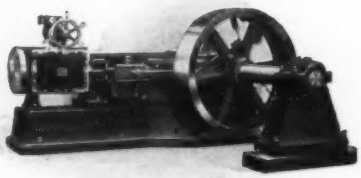

YOU forget to shift brushes after you buy a Ridgway unit. But no harm results, for brush shifting isn't necessary on a Ridgway unit. Sparkless commutation, perfect regulation, unequaled economy—these good qualities you find in a Ridgway Generating Unit—and more.

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BEAUTIFUL
NOISELESS
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THE ARCHITECTURAL RECORD.

New Laboratory Building for Department of Agriculture, Washington

The Blaisdell System of Vacuum Cleaning

was recently installed in the above building, which is 1040 feet long.

Watch this space for cuts of two million dollar Post Office, Cleveland, Ohio, and million dollar Court House, Memphis. They selected the Blaisdell Vacuum Cleaner.

Efficiency and reliability of operation are the vital features of the Blaisdell system.

Stationary vacuum cleaning equipment for any service and in any capacity, for

Office Buildings	Club Buildings	Hotels
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Library Buildings	Hospitals	Theaters
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We solicit inquiries from Architects and will be pleased to furnish them preliminary estimates or proposals covering Vacuum cleaning equipment.

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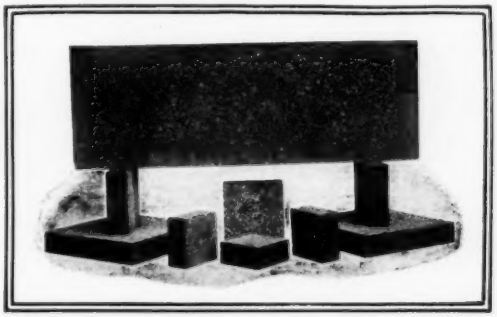
NONPAREIL CORKBOARD

FOR INSULATING REFRIGERATED ROOMS



TO INSULATE COLD STORAGE ROOMS properly is just as important as to provide means to keep them cold. At least four fifths of the work the average refrigerating machine does, or eighty out of every hundred pounds of ice used in cooling storage rooms, goes to remove the heat that is leaking in constantly through walls, floors and ceilings. You can't stop this waste altogether, for no material is heatproof, but by *scientific insulation* you can reduce it to a minimum.

This is where we can help you. We have installed Nonpareil Corkboard in cold storage plants all over the country. It is composed of granulated cork made up in sheets of convenient size. Cork consists chiefly of air sealed up in microscopic cells so that it can't circulate. Corkboard, therefore, is a splendid nonconductor, for every one of these little cells helps to prevent the passage of heat.

These cells are waterproof, too. Hence Corkboard won't absorb moisture, won't rot, won't mold, won't give off offensive odors, won't taint delicate goods in storage. It is easy to put up, strong and sanitary, too. You can nail it against studding; put it up in cement against brick walls; lay it under concrete floors; plaster its surface. Nonpareil Corkboard is the only cold storage insulating material approved by the National Board of Fire Underwriters.

Advice and estimates cost you nothing.

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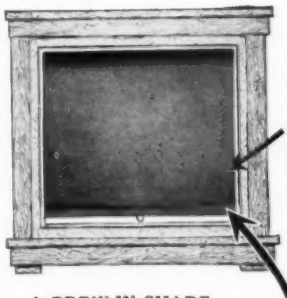
Opaque Shade

Save the difference

Brenlin will outwear three ordinary shades

Thousands of dollars are wasted every year because shades have to be replaced after very little wear.

Brenlin is made without filling of any kind. There is nothing about it to crack.



BRENLIN

A BRENLIN SHADE

This difference in material makes the difference in wear.

And Brenlin really shades. It doesn't show shadows like Holland. It won't wrinkle—won't fade.

Brenlin is made in all colors, ivory white, cream, ecru, reds, greens, etc., and **Brenlin Duplex,** light one side, dark on the other.

The name BRENLIN is perforated in the edge of every yard. Be sure it is there. It is your protection against shades that look like Brenlin when new, but do not wear. Write for samples and names of dealers in your city. If no dealer in your city has it, we will see that you are supplied. Write today.

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7 foot shade, 38 in. wide, complete with best roller, $1.00. Other sizes in proportion.

Brenlin

Patented 1906. Trade Mark Registered.

Really shades and wears

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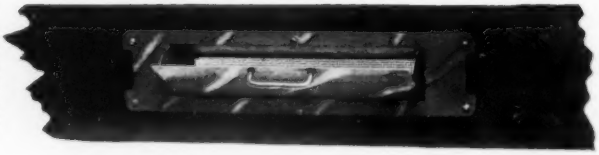
THE IDEAL VENTILATOR

THE IDEAL VENTILATOR—a simple, scientific device that admits fresh air in a room and expels carbonic acid gas or air from which the oxygen has been exhausted.



It takes up no room nor does it disfigure a window, it insures fresh air without draughts and dust, expels all foul air. Just the thing for the toilet or sleeping room.

(INSIDE VIEW ONE HALF OPEN, SHOWING SASH RAIL)

A VENTILATOR THAT CAN BE PLACED IN ANY WINDOW SASH, OLD OR NEW

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Only directory that can be kept alphabetically correct and up to date in every particular. Cheapest, neatest and most convenient. Letters uniform, correctly spaced, and every name on alignment.

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Community Galvanized Sash Chain

(GUARANTEED)

Community Galvanized Sash Chain is made from the best quality of rolled steel stock, punched and made and galvanized on special machinery of our own manufacture. Community Sash has a higher tensile strength per square inch of cross section and a higher fusing point than bronze, copper or any of the alloys used in the manufacture of other sash chains. Our chains will not stretch or melt at temperatures that will melt chains made of other metals, and they will remain in place after the most severe fire tests.

We have standardized the numbers of our Sash Chain to correspond with the weight of double hung sash that they will safely carry.

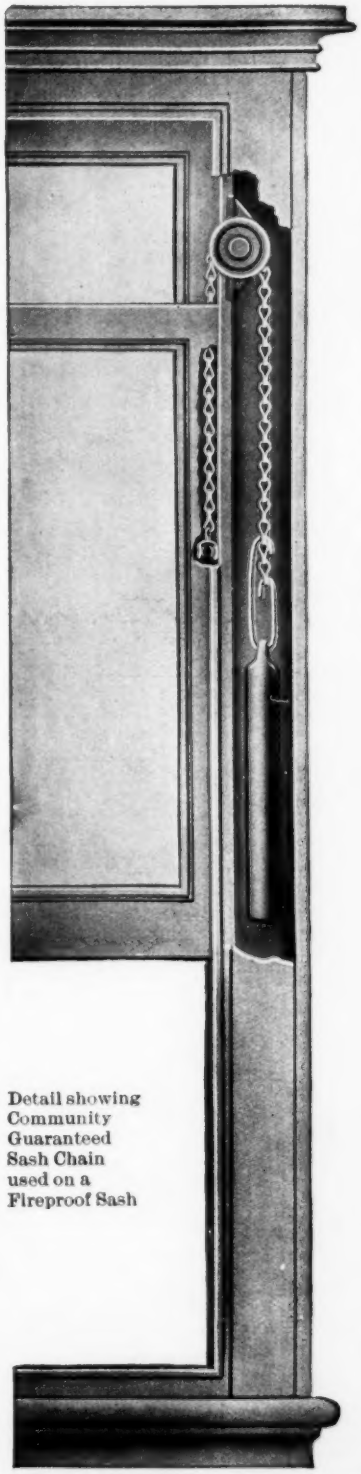
No. 80 for sash weighing 80 lbs.
" 100 " " " 100 "
" 130 " " " 130 "

Tensile strength more than six times that required.

Send for Samples and Prices

Oneida Community, Limited

ONEIDA, N. Y.



Detail showing Community Guaranteed Sash Chain used on a Fireproof Sash

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Patent
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Construction

calls for the strongest and lightest bar you can find. The Petz System of Modern Store Front Construction insures the most light and display room in the window and its strength, rigidity and beauty is evidenced by the fact that it is the choice of hundreds of leading architects. The Petz bar insures quickness of installation, and allows glass to be set from the outside. Send for opinions of prominent users and our book, "Modern Store Front Construction." It describes and illustrates different forms of Petz bars. Write today for a copy. You'll find our bar illustrated in Sweet's Index for 1909, on page 648. **Detroit Show Case Co. (Sole Makers), 477 West Fort St., Detroit, Mich.**

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They create an impervious coating, causing the shingle to shed water like a duck's back, thereby keeping out dampness, the greatest enemy known to wood, and doubling the life of shingles.

Everything that enters into the make of ART IN SHINGLE STAINS is of the highest quality possible for man to produce; they are made in the most scientific manner. **Colors of extreme tone and richness and of absolute purity, combined with pure linseed oil and our special Waterproof Protective Liquid.**

Endorsed by Leading Architects and others

Send for cabinet of rich colors, free

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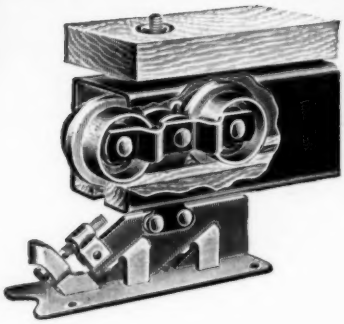
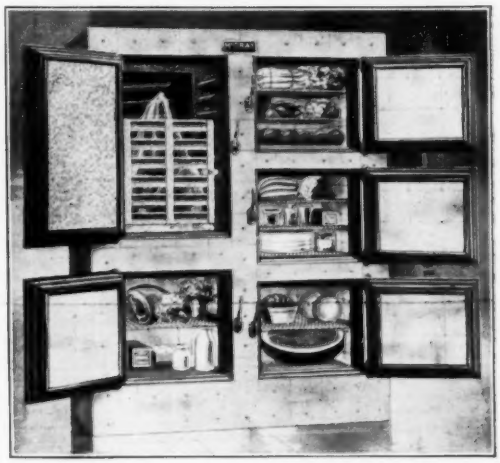


One of the easiest things in the world is to write The Richards Manufacturing Co. to send you free, by prepaid express, one of their hangers. Not a small model, but the thing itself.

See SWEET'S, pages 574-576.

We will send a hanger free to any architect requesting us to do so.

The RICHARDS MANUFACTURING CO. Inc.
Aurora, Illinois. 101 Reade St. N.Y.



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The architect need only send the floor plan and dimensions of the space the refrigerator is to occupy—the McCray Drafting Department works out every other detail.

For example—An architect in Portsmouth, Ohio, specified a McCray to fit a space 57 inches wide by 32 inches deep by 76 inches high—Porcelain Tile inside and out with rear door for icing from the outside.

The above McCray Refrigerator (Special No. 7449) was the result. Built for Mrs. L. D. York, Portsmouth, Ohio. It fits the space intended for it and has the proper capacity and arrangement to suit the requirements of the family.

McCRAY REFRIGERATORS

(Keep things fresh)

in stock sizes may be as truly an integral part of the house as the built-to-order refrigerators, by considering the refrigerator location early and making provision in accordance with the specific dimensions in Sweet's Index.

Fifteen floor plans showing the relative position of kitchen, pantries, refrigerator and outside icing facilities in representative American houses, also exact measurements for arranging the wall opening for outside icing door and locating the drain pipe for stock sizes of McCray Refrigerators, will be found on pages 1082 to 1086 of the 1909 Sweet's Index.

A postal card request will bring you our best discounts, and a copy of the new book "*McCray Refrigerators in American Homes.*"

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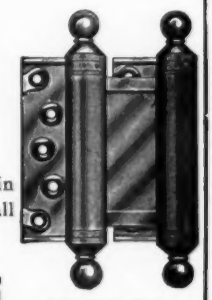
TRADE CSB CO MARK

THE "CHICAGO" and "TRIPLE-END" SPRING BUTTS in their individual characteristic construction are adapted to all the requirements of automatic door operation.

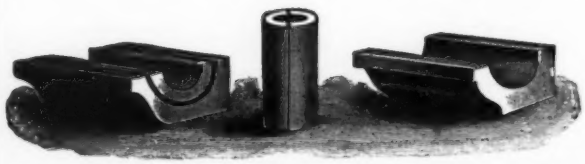
Chicago Spring Butt Company

CHICAGO CATALOGUE ON REQUEST NEW YORK



"TRIPLE-END"

CYPRESS GUTTERS



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Neponset, Boston, Mass.

HURRAH!

Do you know that we have not laid off a man or lost an hour in the past year? Consequently, we do not have to teach our work to new men now that a business rush is on again.

We have a good stock of flooring, the best organized force of men we ever had and lots of nice, seasoned lumber in reserve.

In the large cities we have agents who are experts in laying and finishing of floors. If we have none in your vicinity, we will see that you get the finest material direct. Send then for our new book of designs, photographed from the floors and giving the natural wood colors.

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In specially selected shades and original effects

Full stock always on hand

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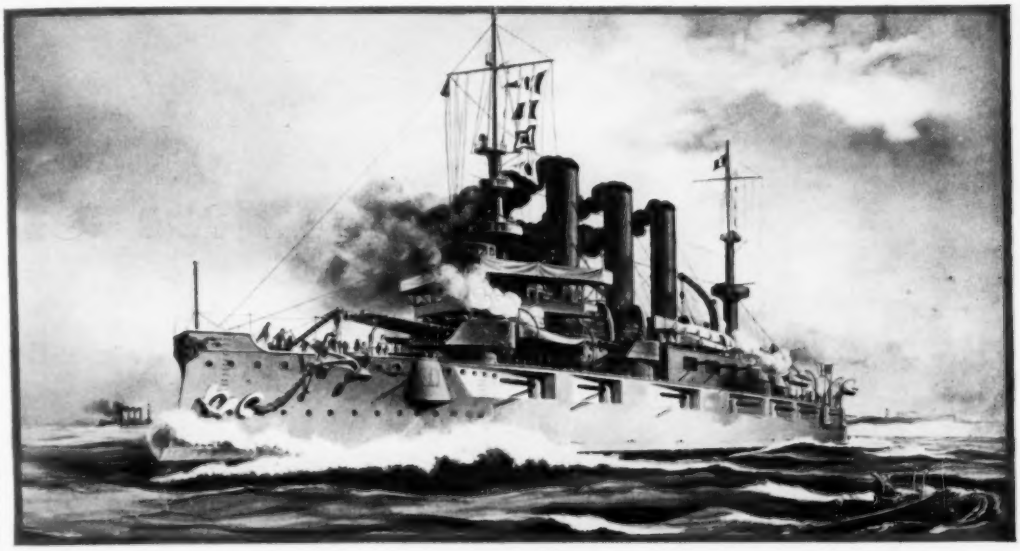


U. S. Battleship "Connecticut" Equipped with Hill-Canton Dryer

Uncle Sam, being a discriminating buyer, equipped the Flagship "Connecticut" with a Hill-Canton Sanitary Dryer before the fleet started on its world circling cruise.

The Hill-Canton Sanitary Dryer

embodies the only true and correct principles of heating and ventilating, and should appeal favorably to every architect.

Cabinet ventilated at the bottom, the only proper place to take out the cold air, steam and moisture. ***Clothes dry in one half the time possible in any other make of cabinet.***

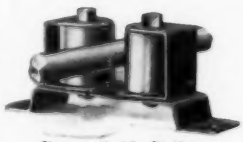
As evidence of Hill-Canton superiority, we can refer to large apartment dryers in New York City and elsewhere, giving perfect results with one laundry stove. The same size dryer made by other companies must of necessity use two stoves, because of defective method of ventilating cabinet.

The economy in fuel, and the reduced cost of operating any size or style Hill-Canton Dryer will in a short time effect a saving equal to the first cost of dryer.

A Special Feature is Hill's Patent Adjustable Metal Ball Bearing Guide Rollers

Used in place of the old style wooden blocks with notches for guides, making it practically noiseless and of easy manipulation, an improvement that will be greatly appreciated by both Architects and Users.

These Guide Rollers can be found in no other make of Dryers.



Patent Guide Rollers

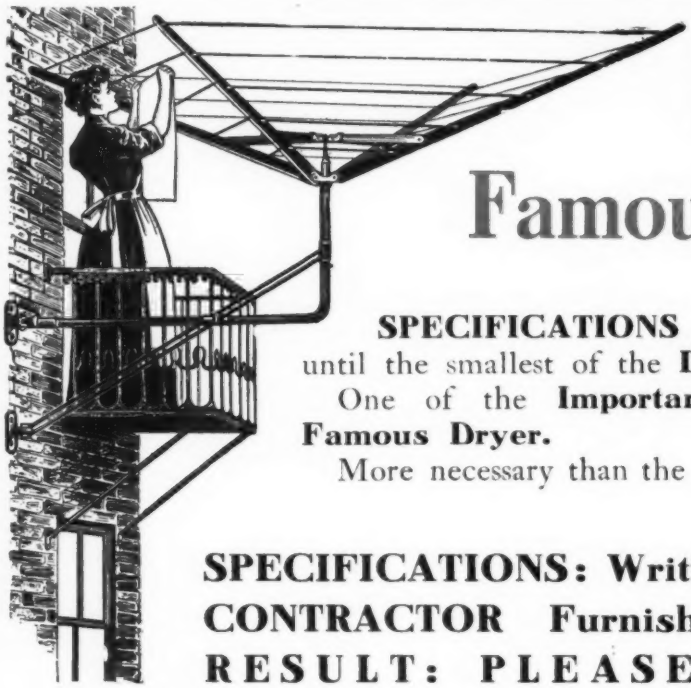
The Hill-Canton Dryer Co.

1133 Broadway, New York

Canton, Ohio **Worcester, Mass.**

Descriptive catalogue "A," explaining fully our sanitary system of heating and ventilating, mailed on request.

THE HILL-CANTON SANITARY DRYER
NEW YORK CITY



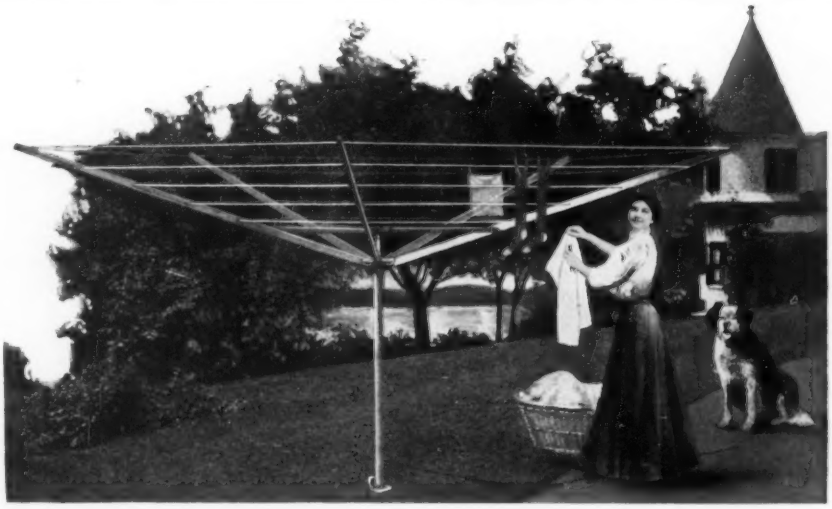
Hill's Famous Dryer

SPECIFICATIONS are never complete until the smallest of the **Details** is cared for.

One of the **Important Details—Hill's Famous Dryer.**

More necessary than the tubs in the kitchen.

SPECIFICATIONS: Written "HILL'S."
CONTRACTOR Furnishes "HILL'S."
RESULT: PLEASED CLIENT

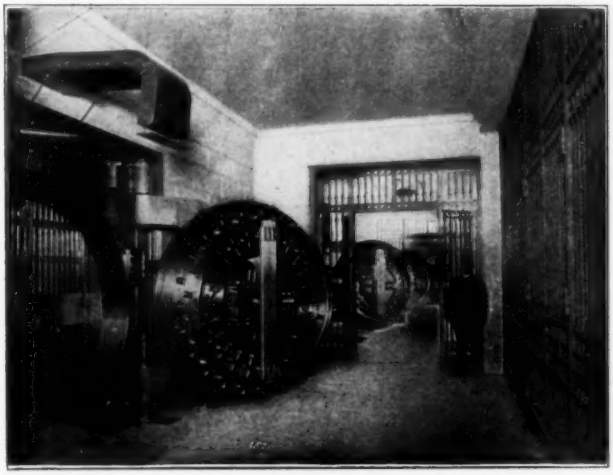


THE MOST POPULAR LAWN CLOTHES DRYER IN THE WORLD

ONE MILLION HILL DRYERS IN USE

No up to date home complete without one. Looks fine on the lawn and out of sight when not in use. Write for Catalog 50

Hill Dryer Co., Worcester, Mass., New York Office, 1133 Broadway



Battery of Vaults in New Building of the American Trust and Savings Bank, Chicago, Ill.

Manufactured By **York Safe and Lock Company**

Makers of Bank and Safe Deposit Vaults, Fire and Burglar Proof Safes and Vault Doors, Safe Deposit Boxes, etc.

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CONSTRUCTED ACCORDING TO THE

BRUNER SYSTEM OF REINFORCED CONCRETE

IS MADE **EXCLUSIVELY** FOR US BY

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The reason that our Glass never breaks, cracks or shales is because it is thoroughly annealed and of a special hard composition. All the other fine points of construction are concisely explained in booklet "B"

OUR OWN MEN INSTALL THIS SYSTEM ANYWHERE

ALBERT GRAUER & COMPANY

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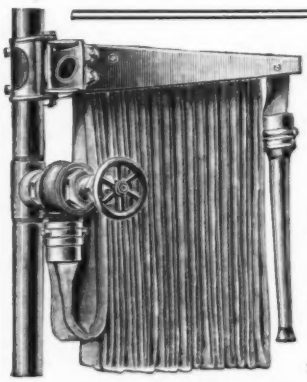
SEE "SWEET'S INDEX" **BRANCH OFFICES IN THE PRINCIPAL CITIES**



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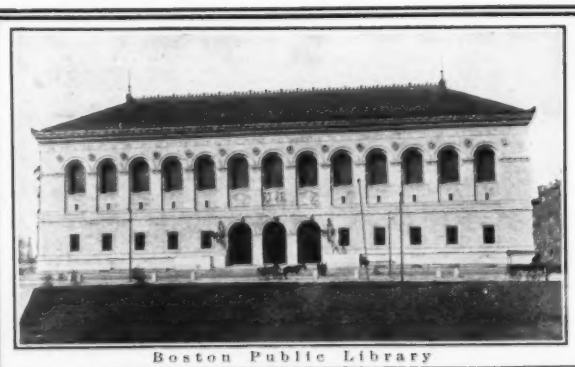

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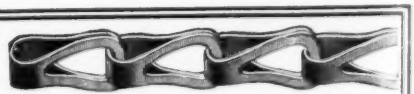

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This explains why Corrugated Bars are used in practically all structures where absolute security and permanence are essentials.
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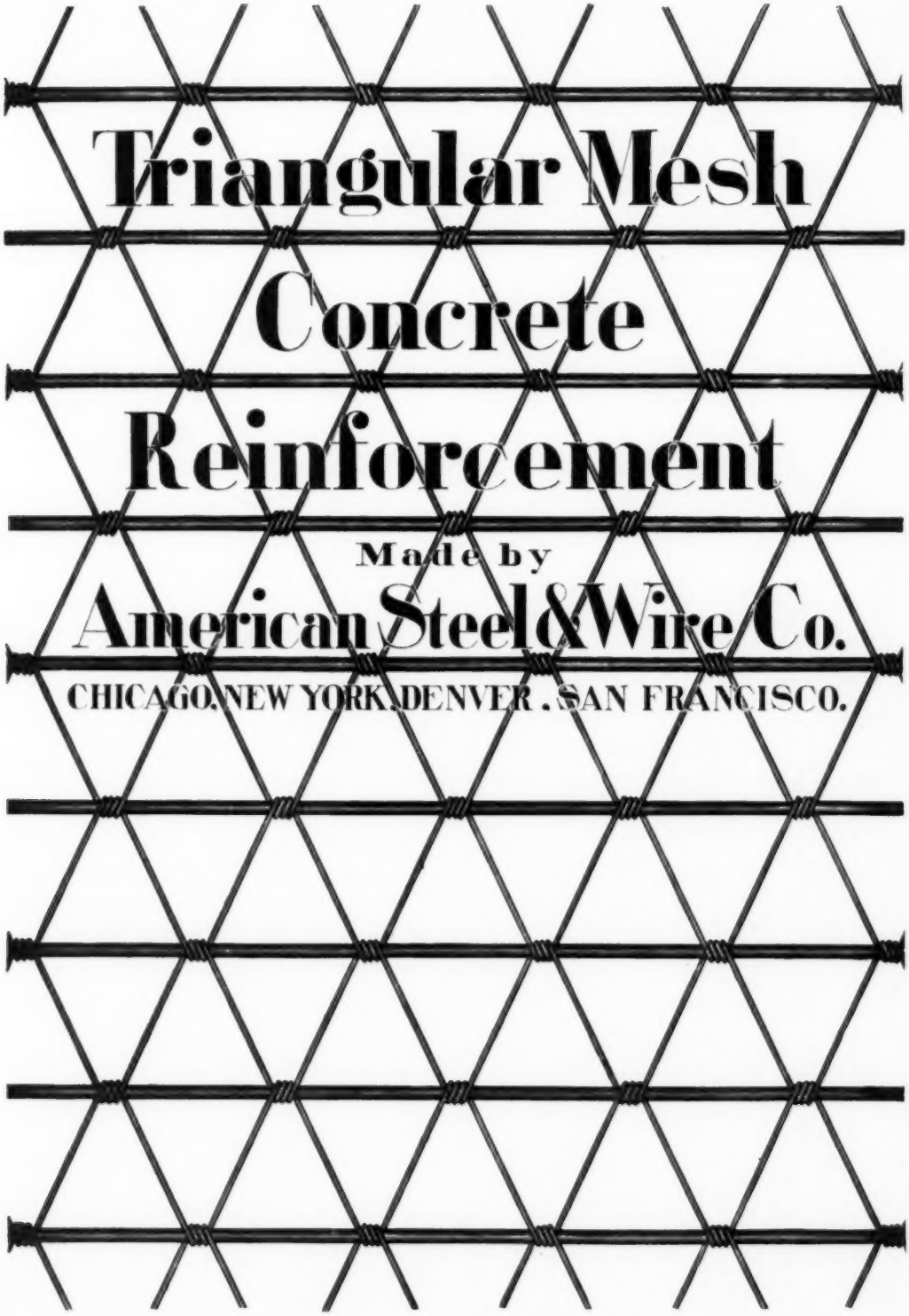
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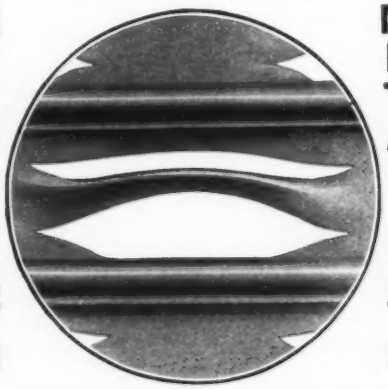

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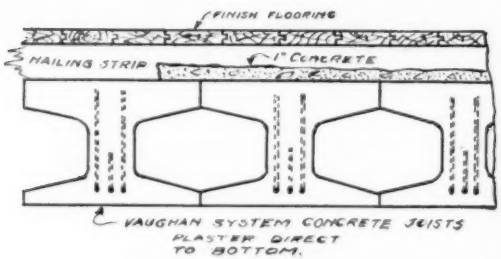

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Fireproof ***Soundproof***

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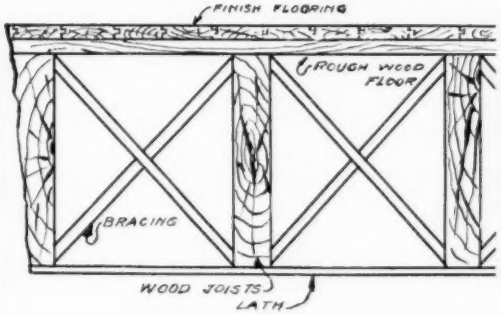

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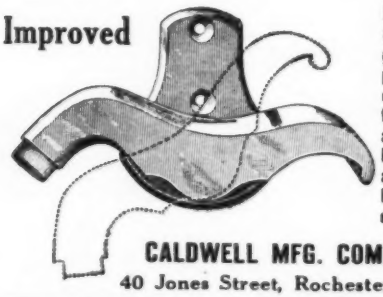

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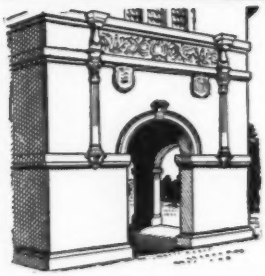

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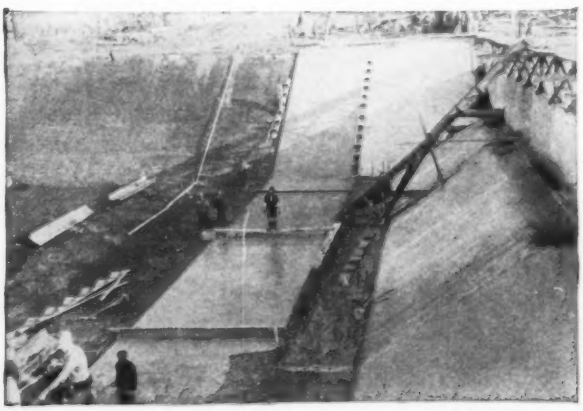

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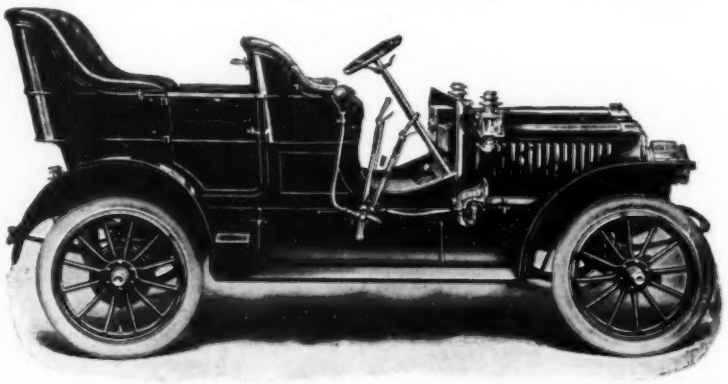


Maxwell Model D A, 4-cylinder, 30 HP Touring Car. $1,750

Some cars use THREE-POINT SUSPENSION; others THERMO SYPHON COOLING, UNIT CONSTRUCTION, MULTIPLE-DISC CLUTCHES—but no other American car combines all these important features in a single design, except THE MAXWELL.

Our 4-cylinder 30 HP types use five-bearing crankshafts—a construction more expensive to make, but certain to produce the satisfaction that is genuine Maxwell satisfaction, the pleasant certainty that the problem of owning a Maxwell is PERFECTLY SIMPLE, because the car itself—no matter which of the Maxwell models you choose—is SIMPLY PERFECT.

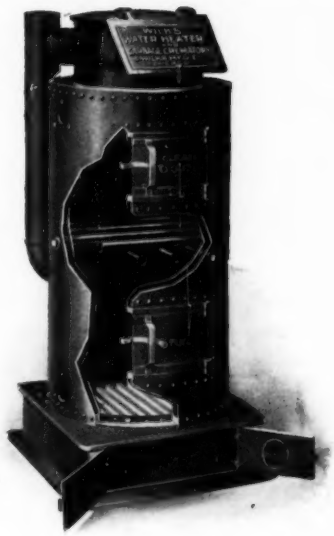
You should be interested to learn more about Maxwells. Drop us a line.

Benj Briscoe

Maxwell-Briscoe Motor Company

P. O. Box 115, Tarrytown, N. Y.

Factories: New Castle Tarrytown Pawtucket



Burn the Garbage Save the Coal

A Wilks Combined Hot Water Heater and Garbage Crematory

first dries and then burns all the garbage thrown in on the water tube grate above the coal fire.

PROMINENT ARCHITECTS

are specifying WILKS GARBAGE CREMATORIES for both their economical and hygienic value.

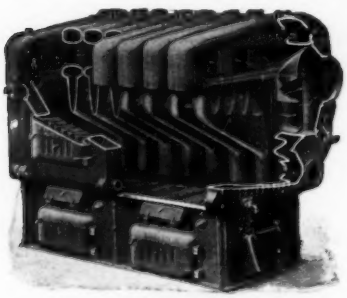
Sizes and Capacities in Sweet's Index, Page 805

Circulars and Full Information Upon Request.

S. WILKS MFG. COMPANY

3535 Shields Avenue, CHICAGO, ILL.

LOOKS GOOD, DOESN'T IT?



Steam, 425 to 12,000 Square Feet
Water, 700 to 20,000 Square Feet

Investigating architects specify, and we guarantee

"THATCHER"

THE HIGHEST TEMPERATURE AT LEAST EXPENDITURE

"PROGRESS" BOILERS

SIDEFEED — SECTIONAL — LOW WATER LINE

"A BOILER TO FIT ANY JOB"

THATCHER FURNACE COMPANY

ESTABLISHED 1850

110-116 BEEKMAN ST., NEW YORK **154 LAKE ST., CHICAGO**

BOSTON COPPER RANGE BOILERS

are the BEST made
and are all GUARANTEED

We make four grades, to meet every demand of QUALITY and PRICE. We make Pressure Boilers to stand any required pressure up to four hundred pounds. Designed in every detail to give long and reliable service. Embodying only highest grade materials and skilled workmanship in their construction. Special sizes to order.

DAHLQUIST MANUFACTURING COMPANY

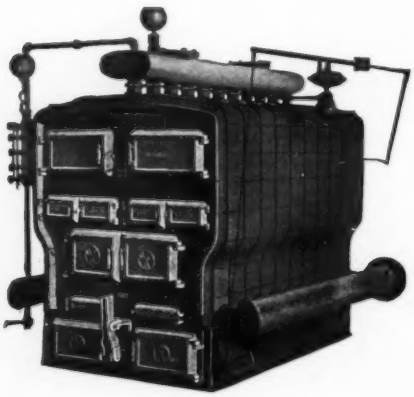
Largest Manufacturers of Copper Boilers in New England

40 WEST THIRD STREET **SOUTH BOSTON, MASS.**

For Heating Apartment Houses, Public Buildings, School Houses, Churches and large Residences,

always use the

American for Steam
or
Advance for Water



These boilers are cast iron sectional boilers of Header construction, made in five styles of forty sizes, with capacities of 350 to 7200 ft. for Steam and 575 to 11,875 ft. for Water. Our American Blue Book gives all measurements, capacities and list prices, and tells of the advantages of this Header Construction and the other good points of these boilers.

The Blue Book is free; ask for it.

Pierce, Butler & Pierce Mfg. Co.
Syracuse, N. Y.

KEWANEE Boilers

Honest Rating

Why is that you architects specify heating boilers two or three sizes larger than their rated capacity for a given amount of radiation?

Wouldn't you rather specify a boiler with a reliable rating than one you are afraid of?

Wouldn't it be better for you to *know* that you had a boiler that would take care of a thousand square feet, when the catalogue ratings call for a thousand square feet, than a couple of sizes larger?

We are rating boilers on that line. We *know* what they can do and will tell you frankly about it.

Be sure and get our catalogues.

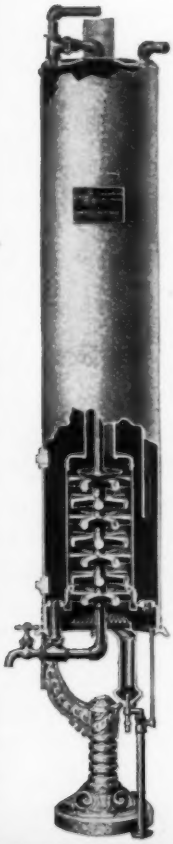
THE BUSY SHOP

KEWANEE BOILER COMPANY
KEWANEE, ILLINOIS

Electric Weld COMBINATION BOILER AND GAS WATER-HEATER

The American householder is a comfort loving animal—demands plenty of *hot* water on tap whenever and wherever he wants it.

Demands that it shall *not cost him too much.* "Electric-Weld" Combination Boiler and Heater is an *instantaneous* heater and *works under pressure.* Gives a strong, steady flow at the full capacity of a 3-4 inch faucet under city pressure.



Light the gas and draw off hot water *instantly*—at 3 1-3 gallons for each cubic foot of gas.

No waste of gas in heating up a boilerful, when only a few gallons are needed.

Architects, Builders and Sanitary Engineers on the Pacific Coast specify more "Electric-Weld" Combinations than of all other gas water-heaters put together.

Plumbers of the right sort everywhere are taking hold of it. Let us know if you cannot find it. Send for our "Book of Tests," the first systematic figures on gas water-heating ever published.

John Wood Manufacturing Co.

Conshohocken, Pa.

Jenkins Bros. Valves

have the favor of engineers because they are the easiest to keep tight. Made of new steam metal of best quality. Interchangeable parts. Contain genuine Jenkins Discs—either *Hard*, for steam and hot water use; or *Soft*, for cold water, air or gas.

May we send you catalog?

JENKINS BROS., New York, Boston, Philadelphia, Chicago

PIPES CANNOT FREEZE

FINEST BRASS GOODS MADE GLAUBER

Automatic Self Draining Valve

Completely Drains Every Pipe
Please your clients and specify them.

GUARANTEED 5 YEARS

GLAUBER BRASS MFG. CO., - Cleveland, Ohio

The NATURO Idea

For the first time considers the Water Closet as more than merely a sanitary means for stooling.

The NATURO Slant—seat higher in front than rear—prevents the wetting of the Seat, and at the same time provides the squat posture, now conceded by physicians generally to be a most important factor in the physiological study of the blood supply and its relation to health.

No bathroom is complete without the NATURO and no hospital or institution should be planned without full knowledge of the NATURO idea. Catalog "C" and interesting scientific pamphlet free.

The C. H. Muckenhirn Closet Company - Detroit, Michigan

Dodge Reports follow, step by step from the architect's office to the finished building, all building operations throughout the United States. By these reports you learn not merely what goods are needed, but also the moment when they are needed. The F. W. DODGE COMPANY, 11 East 24th St., N. Y., also Boston, Philadelphia, Pittsburg and Chicago.

HEATING

with THE GORTON SYSTEM insures perfect control of the heat and greatest economy in fuel consumption.
Write for booklet with full particulars.
GORTON & LIDGERWOOD CO. 96 LIBERTY ST. NEW YORK

SAMSON SPOT CORD can be distinguished by our Trade-Mark, the Colored Spot. It has been proved by long experience to be the most economical device for hanging windows. See page 579 of SWEET'S INDEX.

SAMSON CORDAGE WORKS, - BOSTON, MASS.

THE ARCHITECTURAL RECORD.

Interested in HONEYWELL Hot Water Heating and Want Proof?

Write us if you are interested in cutting down the sizes of all pipes in hot water heating below the sizes used for low pressure steam, and we will prove to you why Honeywell does this, and tell you *where* you can see a plant.

Write us if you wonder why Honeywell hot water costs so much less than ordinary hot water heat to install, and we will prove our statement to your satisfaction and send you the names of your local fitters, who will confirm our figures.

THE HONEYWELL HEAT GENERATOR

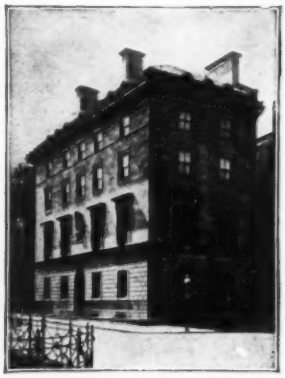
Write us if you know of an old hot water job that refuses to circulate freely, and we will have any of your local fitters correct the fault by connecting a Honeywell Heat Generator to the present system of boiler, pipes and radiators. If the improvement is not satisfactory *to you*, we will pay the fitter and restore the plant to its original condition. The Generator can be connected in one hour.

Write us if you are interested in the Honeywell Hot Water System sufficiently to send us blue prints of any building you have planned to heat with either hot water or low pressure steam. We will detail every item of the piping, valve and radiator layout, and will guarantee that your local fitters will install the Honeywell system complete as cheap as low pressure steam, and that the system will circulate perfectly at lower temperatures and at higher temperatures than any hot water system you have ever tested; will be much more responsive to firing and operate on less fuel.

Write us for these proofs and figures, or detail drawings, and you will use Honeywell Hot Water Heating in every building you have on the boards.

HONEYWELL HOT WATER HEATING

WABASH **INDIANA**



Residence, corner Park Avenue and 70th Street, New York.
Delano & Aldrich, Architects.
Heated by Kelsey Battery System.

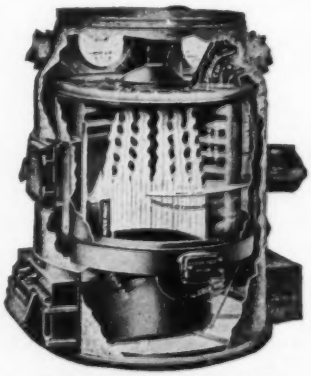
THE KELSEY
WARM AIR
GENERATOR

System of Home, School and Church Heating
HAS TRIUMPHED

In the really representative American homes, where hygienic conditions as well as economy and comfort are considered, there you will find

THE KELSEY

What better endorsement can it have?



THE KELSEY GENERATOR

We are glad to furnish specifications, catalogs and individual plans for the use of architects, contractors and builders.

Kelsey Heating Co.
210 Rosenbloom Building, Syracuse, N. Y.
158D Fifth Avenue, New York

Sealed Window Buildings

Swift & Co., Chicago
(Located in the middle of the Union Stock Yards, Chicago)

Larkin & Co., Buffalo
(Situated alongside railroad yards, with hundreds of soft coal burning locomotives)

P. & L. E. R.R., Pittsburg
(This office building is in the smokiest spot in Pittsburg)

These buildings, used exclusively for office purposes by the corporations owning them, would be practically uninhabitable for the uses for which they were built except for the installation of "Thomas Acme" Air Washers, through which all air for each building is filtered.

The air delivered to each building from the air washer is scientifically ideal and physically refreshing.

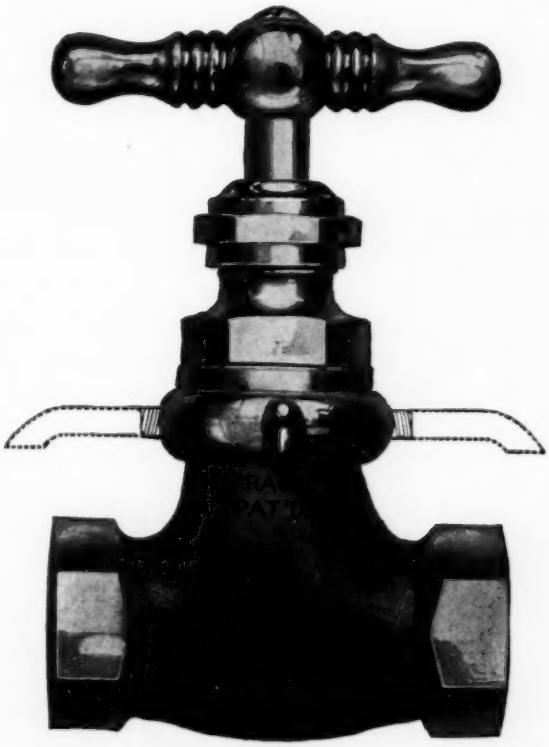
There is no window ventilation, as all windows are sealed.

Detailed information on the astonishing results obtained in each of these three buildings will be mailed any interested architect.

Thomas & Smith
15 S. Carpenter St., Chicago

Desirous of maintaining our prominence as makers of up to date goods, we call attention to our new line of

"Paragon"
Compression Stop-Waste Cocks



We have tested these goods in every way, and offer them to the trade with the confidence that, in construction, durability and general appearance, they are the equal of anything on the market having full waterway and swing waste. This line we guarantee absolutely.

THE SANITARY CO., Cleveland, Ohio, U.S.A.

Exclusive Makers of "PARAGON QUALITY" Plumbing Goods

An Attractive Shower for Private Residences or Clubs

One of the 150 styles and sizes which we are prepared to furnish on a few days' notice.

Write for Catalogue "G."

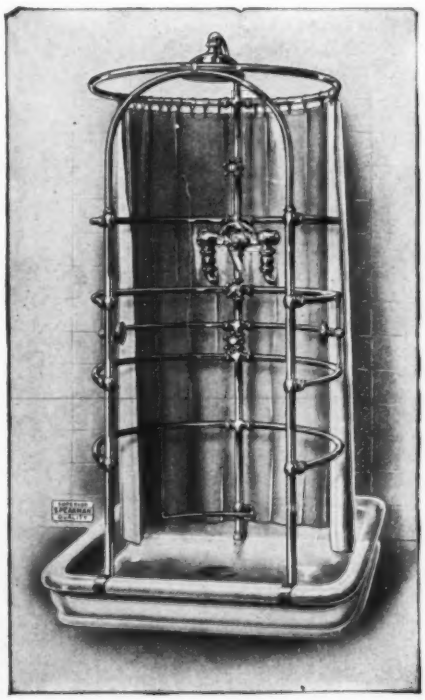


Figure 1020.
Nickel Plated Brass Needle Shower with Bidet and Liver Spray. Operated with **Speakman's Non-Scalding Regulating Valve (simply by turning the one handle from left to right).**

List $175.00

Receptor not included.

All of our Needle Showers are furnished with strainer unions, which prevent sediment from getting into the sprays or valves.

See our full page ad. in "Sweet's"

Speakman Supply & Pipe Co.

RIVERVIEW WORKS

Wilmington, Delaware

Manufacturers of the largest line of Showers made

OFFICES

156 Fifth Ave., New York City—Albert G. Weber
Monadnock Bldg., San Francisco, Cal.—W. E. Gilchrist

IN KALAMAZOO WE DO

make the best water closet tank ever **made,** and we can **prove** it.

All steel Porcelain Enameled. Cannot Leak. Cannot Sweat. No Wood. No Copper. No Solder.

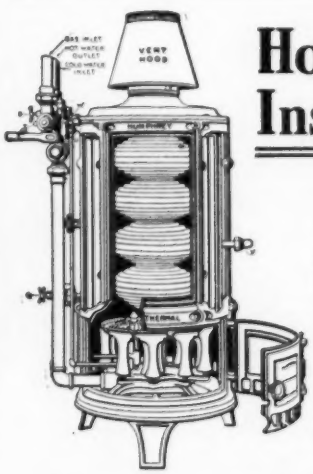
KAZOO ZWERMA WELDO

High Grade—Intermediate—Competitive

KAZOO FLOAT. All Steel Seamless Porcelain Enameled. Fools bad water. Order one.

The Enameled Steel Tank Company

Kalamazoo, Mich.



Hot Water Instantly

Means unequaled completeness to any home.

Hot water instantly heated is at hand upon opening a faucet wherever a

Humphrey Auto-Thermal Pressure Water Heater

is used. Simple, very durable, free from trouble, absolutely guaranteed. Why not let us recommend what will most satisfactorily supply your hot water requirements? We will gladly do it.

HUMPHREY CO., 539 Rose St., Kalamazoo, Mich.

Mueller Colonial Self-Closing Plumbing Work

(Patented)

D-12002

It is quite certain that if you stretch a rubber its elasticity will restore it to normal length when you release your hold.

And it is just as certain that a Mueller Colonial Self-Closing Bibb will close with a quick, positive action when the handle is released.

The elasticity of the powerful phosphor bronze spring in Mueller Colonial Self-Closing Work, like that of the rubber, acts with unfailing precision.

Mueller Self-Closing Plumbing Work has a wonderfully easy action, because of the roller bearings between the cap and the bonnet. These bearings make the cock easy to open and likewise easier to close.
See Sweet's Index.

Unconditionally Guaranteed

TRADE MARK
COLONIAL
REGISTERED

H. Mueller Mfg. Co.

Works and General Offices
Decatur, Ill., U. S. A.
West Cerro Gordo Street

Eastern Division
New York, N. Y., U. S. A.
254 Canal St., cor. Lafayette

Chicago Branch: 37 Dearborn St., Chicago, Ill., U. S. A.

You will make no mistake

if you specify this sink

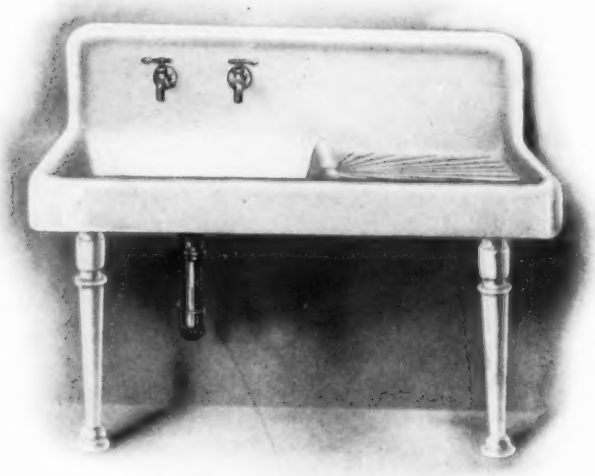


PLATE D-92 SINK. (PATENT APPLIED FOR.)

THE only sink made with back, apron and drain board cast integral. The handsomest, most convenient and most sanitary sink on the market. Every housekeeper who sees this sink wants it in her kitchen, and leading architects everywhere have discovered this and are specifying it. Sink made with either right or left hand drain board; also made with corner piece for right or left hand corner. Handled by leading jobbers and plumbers everywhere. Ask for special sink circular illustrating our entire line of roll rim and apron sinks, or booklet showing "Southern Beauty" lavatories, kitchen sinks, slop sinks, etc.

THE CAHILL IRON WORKS

No. 10 14th St., Chattanooga, Tenn.

Eastern Branch Office and Warehouse
76 West Thirty-sixth Street, New York, N. Y.
Thos. H. Hutchinson Manager

Portland Branch
650 Sherlock Building
H. A. Heppner & Co., Sales Agents

Solvay Process Co., Solvay, N. Y. J. W. Baxter, Jr., Syracuse, Architect

IN buildings employed as business offices, manufacturing plants, or combinations of both, efficient sanitation is as necessary and desirable as in the dwelling. This condition is most effectively assured through the use of

"Standard"

Plumbing Fixtures

The offices of the Solvay Process Co., Solvay, N. Y., illustrated above, were designed to embody the combination of outward attractiveness and internal wholesomeness. To ensure the latter, the genuine "Standard" equipment was installed throughout, as it has long been an established fact that these splendid fixtures represent the highest degree of healthful sanitation and efficient service.

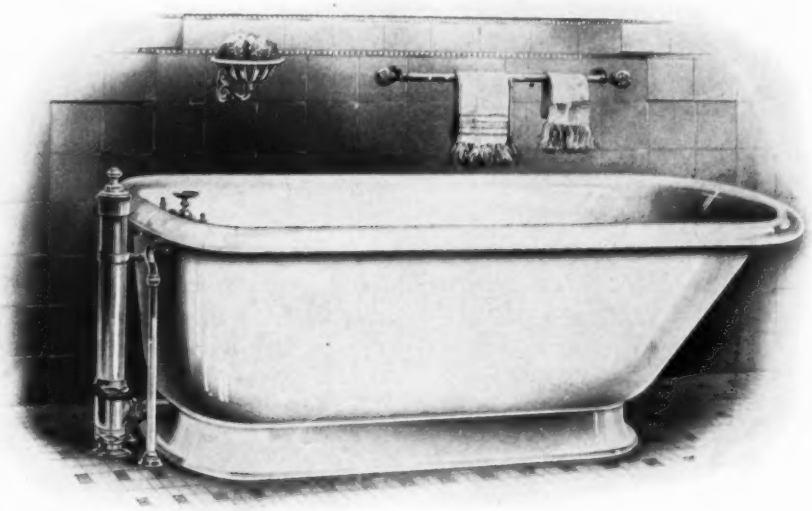
The installation of "Standard" ware is the one sure road to present sanitation and future economy.

When you specify "Standard" Fixtures, see that each piece bears the "Standard" Green and Gold Guarantee Label, otherwise it is not the genuine "Standard" Ware.

Standard Sanitary Mfg. Co. - PITTSBURGH, PA.

Offices and Showrooms in New York: "Standard" Building, 35-37 West 31st Street.

St. Louis: 100-102 North Fourth Street
Louisville: 319-323 West Main Street.
London, Eng.: 22 Holborn Viaduct, E. C.
Pittsburgh: 949 Penn Avenue
Philadelphia: 1128 Walnut Street
New Orleans: Cor. Baronne & St. Joseph Sts.
Cleveland: 648-652 Huron Road, S. E.



H. 6520. Corona Enameled Iron Tub on Iron Base.

Guaranteed

Architects who have had experience of the expense and annoyance of tearing out unguaranteed enameled iron fixtures are the most careful men in specifying Wolff Guaranteed enameled ironware *and in identifying the fixtures on the job.*

It is worth the trouble of *insisting*, to know that you have the Wolff guarantee and the Wolff 54 years of quality back of the enameled ironware that is specified and *installed.*

L. Wolff Manufacturing Co.

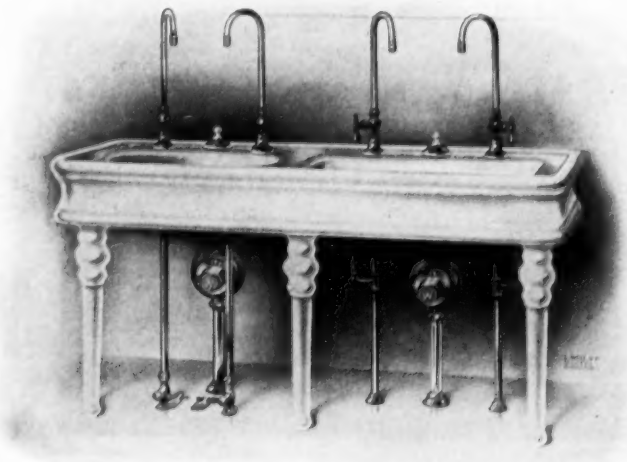
MANUFACTURERS OF

Plumbing Goods Exclusively

The only complete line made by any one firm

DENVER **Showrooms, 91 Dearborn St., Chicago** **TRENTON**

Minneapolis, Minn., 615 Northwestern Bldg. **Cleveland, O.,** Builders' Exchange
Kansas City, Mo., 1209 Scarrett Bldg. **Washington, D. C.,** 327-328 Bond Bldg.
San Francisco, Cal., Monadnock Bldg. **Buffalo, N. Y.,** 77 Richmond Ave.
Omaha, Neb., 1108-1112 Nicholas St.



H. 3246. Solid Porcelain Hospital Combination Sink and Lavatory.

Solid Porcelain Specialists

From the purchasing of all material by chemical analysis, through the mixing, modeling, enameling and kilns, every MONUMENT solid porcelain fixture is watched by specialists.

The smallest lavatory or the largest tub bearing the MONUMENT label is worth while specifying and identifying on the job.

There is no useful plumbing fixture that may not be obtained in distinctive design from the MONUMENT solid porcelain line.

Monument Pottery Co.

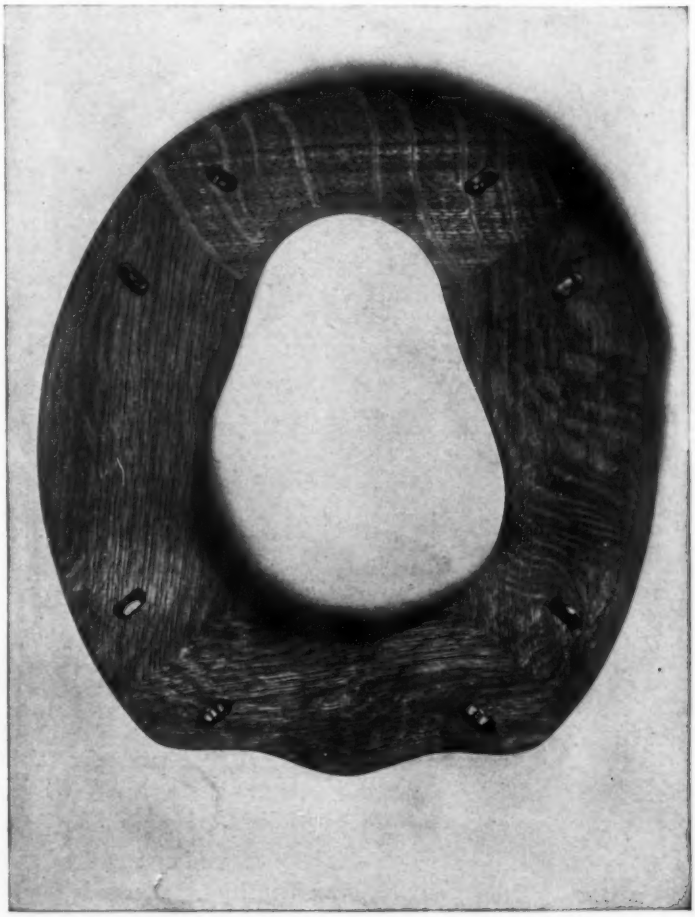
Trenton, N. J.

Nothing is Left to the Imagination

EVERY feature of the "Never-Split" Closet Seat is shown with distinctness, so that you will receive fully as favorable an impression from our advertising and catalogue as though the seats themselves were sent to you for inspection. The result is an absolutely perfect understanding of the various styles and qualities of finish and the distinction between the lasting qualities of the "Never-Split" Seat as compared with the ordinary kind.

Those who have had experience with the "Never-Split" Seat will not enter any other closet seat into the construction of any building.

"Never-Split" Closet Seats are ***built,*** bolts inserted, and finished by skilled hands, and are positively guaranteed to Architect, Building Contractor, Plumber and Owner for five years, not to split or come apart at the joints a hair's breadth. Specify "Never-Split" Seats and run absolutely no risk.



This is the underside of the "NEVER-SPLIT" Seat as it appears with bolts tightened. The next step is the filling of the eight mortise holes with a composition matching the color of the wood, and which sets as hard as rock.

Specification requirements may be obtained from page 8 of our Catalogue "C." Please make requisition by Post Card, or see "Sweet's," pages 768-769.

NEVER-SPLIT SEAT COMPANY

EVANSVILLE, INDIANA

The

Luxfer

Daylighting System should not be considered an "extra" any more than a heating equipment.

Daylight is as necessary for the healthful conduct of business as a comfortable temperature.

Sidewalk Prism

The economy of using real *daylight* instead of paying gas or electric light bills is obvious. Why not increase the rental value of the building?

See our catalogue, pages 601-605, "SWEET'S."

AMERICAN Luxfer Prism COMPANY

CHICAGO, Heyworth Building
BOSTON, 49 Federal Street
BALTIMORE, 25 Old Builders' Exc.
CLEVELAND, 1022 Garfield Building
CINCINNATI, 37 Thoms Bldg.
DULUTH, 106 W. Michigan St.
INDIANAPOLIS, 342 E. Washington St.
KANSAS CITY, 948 N. Y. Life Bldg.
LOS ANGELES, 232 Bradbury Bldg.
MILWAUKEE, 1112 Railway Exc.
NEW YORK, 507 W. Broadway
NEW ORLEANS, 904 Hennen Bldg.
PITTSBURG, 1022 Fulton Bldg.
PHILADELPHIA, 807 Chestnut St.
ROCHESTER, 38 Exchange St.
ST. PAUL, 615 Ryan Building
SAN FRANCISCO, 151 Tehama St.
SEATTLE, 72 Maynard Building

CORK TILING—*The* IDEAL FLOOR

SPACE BACK OF DESK, OFFICE OF HOTEL LORRAINE, FIFTH AVE. AND 45TH ST., NEW YORK

THE clerks stand at the desk in this office continuously, night and day. The maple flooring formerly used had to be renewed every two or three years. This Cork Tiling was laid **twelve years** ago, and today shows not the slightest trace of wear. Its ease and comfort to the feet are appreciated by the clerks. The hotel management was so pleased with it at the end of five years that they had it laid in the restaurant and pantry.

MORE DURABLE THAN GRANITE
NOISELESS AS VELVET CARPET
IMPERVIOUS TO GREASE AND CHEMICALS
NON-ABSORBENT AND ODORLESS
CLEANER AND MORE SANITARY THAN TILE
SILENT AND COMFORTABLE TO THE FEET
REQUIRES NO CARE BUT OCCASIONAL WASHING
NON-INFLAMMABLE AND NON-SLIPPERY
ABSOLUTELY UNAFFECTED BY STRAINS, DAMPNESS OR HEAT AND COLD

For Offices, Banking Rooms, Libraries, Churches, Hospitals, Billiard Rooms, Restaurants, Dining Rooms, Kitchens, Bathrooms

DAVID E. KENNEDY, Inc., 156 Fifth Av., New York

Distributers for the Armstrong Cork Company

218 LaSalle Street
Chicago

SEE PAGES 256-257 IN SWEET'S INDEX

913 Security Building
St. Louis